

IBS MAINTENANCE DIAGNOSTIC PROGRAM

PART NO. 5558421
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4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

EBR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT

	2 *			LAST CHG:08 01 74
0000	3 DECK 4			
	4 SEO 0			
	5 L3741 START 0			
	6 TREP			
0A00	7 ORG X'A00'			
	8 ****			
	9 * 3741 FUNCTION TEST		WITHOUT DIAGNOSTIC CONNECTOR	*
	10 ****			
	11 *		SECTION PREFACE	*
	12 ****			
0A00 4011	0A01 13 DC XL2'4017'		PROGRAM ID AND REVISION LEVEL	
0A02 00	0A02 14 DC XL1'00'		SECTION FLAGS	
0A03 01	0A03 15 DC XL1'01'		CURRENT ROUTINE NUMBER	
0A04 0000	0A05 16 DC XL2'0000'		RESERVED	
0A06 0A0D	0A07 17 DC AL2(BEGIN)		FIRST ROUTINE ADDRESS	
0A08 FFFF	0A09 18 DC XL2'FFFF'		RESERVED	
0A0A 405000	0A0C 19 DC XL3'405000'		SECTION PREFACE UNIT DEF. TABLE	
	20			
	21 ****			
	22 * INTRODUCTION		TELL OPERATOR TO DO SYSTEM RESET	*
	23 ****			
0A0D 01	0A0D 24 BEGIN DC XL1'01'		DUMMY ROUTINE PREFIX.	
0A0E 00	0A0E 25 DC XL1'00'			
0A0F 0A51	0A10 26 DC AL2(RTN01)			
	27			
0A11 C0 87 021A	0A11 28 BEGINN EQU *			
0A15 41	0A15 29 B PRINT		PRINT BEGINNING INSTRUCTIONS	
0A16 77	0A15 30 DC XL1'41'			
0A17 1A03	0A16 31 DC AL1(MSG1-MSG1B)			
0A19 40E0	0A18 32 DC AL2(MSG1)			
0A1B C0 87 021A	0A1A 33 DC XL2'40E0'			
0A1F 06	0A1F 34 B PRINT			
0A20 50	0A1F 35 DC XL1'06'			
0A21 1A53	0A20 36 DC AL1(MSG2-MSG2B)			
	0A22 37 DC AL2(MSG2)			
	38			
0A23 3C 40 1F4A	0A23 39 MVI PRT+1,X'40'		BUILD 'CLEARING' BYTE.	
0A27 0C 5A 1F49 1F4A	0A27 40 MVC PRT(91),PRT+1		CLEAR PRINT AREA.	
0A2D C2 01 0A51	0A2D 41 LA RTN01,XR1		RESTORE RTN01 ADDRESS.	
0A31 34 01 0A07	0A31 42 ST FRTN,XR1			
0A35 3D E0 0A4C	0A35 43 CLI HPLXX,X'E0'		CURRENT HALT A -EO- ?	
0A39 F2 81 07	0A39 44 JE ALTER		JUMP IF SO.	
0A3C 3C E0 0A4C	0A3C 45 MVI HPLXX,X'E0'		SET UP FOR A -EO- HALT.	
0A40 F2 87 04	0A40 46 J *+7			
0A43 3C E1 0A4C	0A43 47 ALTER MVI HPLXX,X'E1'		SET UP FOR A -E1- HALT.	
	48			
0A47 C0 87 0222	0A47 49 B HALT		PROGRAM HALT -EO- OR -E1-.	
0A4B 40E?	0A4B 50 HPLXX DC XL2'40E1'			
	51			
0A0D C0 87 0A11	0A0D 52 B BEGINN		REPEAT MESSAGE IF NO SYSTEM RESET.	

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ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT

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54 *****
55 * RTN01 *
56 *****
57 *
58 * ROUTINE 01      TEST 3741 FOR NOT READY.
59 *
60 *****
0A51 01    0A51   61 RTN01 DC  XL1'01'          ROUTINE NUMBER
0A52 00    0A52   62 DC   XL1'00'          NO MANUAL INTERVENTION REQUIRED
0A53 0A6B   0A54   63 DC   AL2(RTN02)        ROUTINE 02 ADDRESS
               64
0A55 C0 87 021A 0A59   65 B    PRINT           PRINT NOT READY TEST HEADING.
0A59 45    0A59   66 DC   XL1'45'
0A5A 18    0A5A   67 DC   IL1'24'
0A5B 1CDD   0A5C   68 DC   AL2(TORDY)
0A5D 40A1   0A5E   69 DC   XL2'40A1'
               70
0A5F C0 87 175D 0A63   71 B    QUES           TEST FOR SSW 10.
0A63 F0 3C 3C   0A63   72 HPL  X'3C',X'3C' HALT -FF- IF ON.
               73
0A66 C1 40 0216 0A66   74 TIO  LINK,X'40'      BRANCH TO DCP IF NOT READY.
               75
0A6A C0 87 1787 0A6A   76 B    TIOERD        BRANCH TO RDY ERROR IF NOT ON.
               77
               78
               79 *****
80 * RTN02 *
81 *****
82 *
83 * ROUTINE 02      TEST 3741 FOR NOT BUSY.
84 *
85 *****
0A6E 02    0A6E   86 RTN02 DC  XL1'02'          ROUTINE NUMBER
0A6F 00    0A6F   87 DC   XL1'00'          NO MANUAL INTERVENTION REQUIRED
0A70 0A8B   0A71   88 DC   AL2(RTN03)        ROUTINE 03 ADDRESS
               89
0A72 C0 87 021A 0A76   90 B    PRINT           PRINT BUSY TEST HEADING.
0A76 45    0A76   91 DC   XL1'45'
0A77 17    0A77   92 DC   IL1'23'
0A78 1CC5   0A79   93 DC   AL2(TOBSY)
0A7A 40A2   0A7B   94 DC   XL2'40A2'
               95
0A7C C0 87 175D 0A80   96 B    QUES           TEST FOR SSW 10.
0A80 F0 3C 3C   0A80   97 HPL  X'3C',X'3C' HALT -FF- IF ON.
               98
0A83 C1 42 17BF 0A83   99 TIO  TIOERB,X'42'     BRANCH OUT ON ERROR IF BUSY.
               100
0A87 C0 87 0216 0A87   101 B    LINK           RETURN TO DCP.
               102
               103
               104 *****
105 * RTN03 *
106 *****
107 *
108 * ROUTINE 03      SENSE THE STATUS-LENGTH COUNT REGISTERS.
109 *
110 *****
0A8B 03    0A8B   111 RTN03 DC  XL1'03'          ROUTINE NUMBER
0A8C 00    0A8C   112 DC   XL1'00'          NO MANUAL INTERVENTION REQUIRED.
0A8D 0AFD   0A8E   113 DC   AL2(RTN04)        ROUTINE 04 ADDRESS.
               114
0A8F 38 80 0208 0A93   115 TBN  SBYTMO,SSW00     TEST FOR LOOP ON SECTION SWITCH.
0A93 C0 10 0216 0A93   116 BT   LINK           SKIP THIS ROUTINE IF ON.
               117
0A97 0C 09 1EP8 1E66 0A97   118 MVC  PRT-81(10),SNTHE BUILD UP TEST HEADING FOR PRINTING.
0A9D 0C 20 1F19 1AC4 0A9D   119 MVC  PRT-48(33),STLCR
0AA3 3C 4B 1F1A   0AA3   120 MV1  PRT-47,X'4B'
0AA7 C0 87 021A   0AA7   121 B    PRINT          GO PRINT TEST HEADING.

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ERR LOC OBJ BCT CODE	ADDR	STMT	SOURCE STATEMENT	
OAA8 46	OAA8	122	DC	XL1'46'
OAAC 5B	OAAC	123	DC	IL1'91'
OAAD 1F49	OAAE	124	DC	AL2(PRT)
OAAF 40A3	OAB0	125	DC	XL2'40A3'
OAB1 OC 5A 1F49 1F4A		126	MVC	PRT(91),PRT+1
		127		CLEAR PRINT AREA.
OABB 31 41 18CE		128	LIO	H0000,X'41'
OABB C1 42 17BF		129	TIO	DROPD,X'42'
OABF 31 45 18CE		130	LIO	H0000,X'45'
OAC3 30 43 0B3D		131	SNS	TRL,X'43'
OAC7 C1 42 17BF		132	TIO	DROPD,X'42'
OACB 31 44 18E8		133	LIO	H0F55,X'44'
		134		
OACF CO 87 175D		135	B	QUES
OAD3 FO 3C 3C		136	HPL	X'3C',X'3C'
		137		TEST FOR SSW 10. HALT -FF- IF ON.
OAD6 30 42 OAE8		138	SNS	LCR,X'42'
OADA OD 01 OAE8 OAE9		139	CLC	LCR(2),LCR-2
OAE0 CO 81 0216		140	BE	LINK
		141		SENSE STATUS-LENGTH COUNT FOR -8000- SENSED DATA AS EXPECTED? RETURN TO DCP IF OK.
		142	*	ROUTINE 03 ERROR MESSAGE *
		143		
OAE4 CO 87 13BB		144	B	SNSERR
OAE8 8000	OAE9	145	DC	XL2'8000'
OAEA 0000	OAE8	146	LCR	DC
OAE9 03	OAE8	147	DC	XL2'0000'
OAE9 CO 87 17D9	OAE8	148	B	XL1'03'
OAF1 8741	OAF2	149	DC	MAPS
		150		POINT TO MAP CHART. -PAGE 874, ENTRY 1.
OAF3 CO 87 0222		151	B	XL2'8741'
OAF7 4003	OAF8	152	DC	HALT
OAF9 CO 87 0216		153	B	XL2'4003'
		154		RETURN TO DCP.
		155		
		156	*****	
		157	*	RTN04 *
		158	*****	*****
		159	*	*
		160	*	ROUTINE 04 SENSE THE I/O TRANSFER LINES.
		161	*	*
		162	*****	*****
OAFD 04	OAFD	163	RTN04 DC	XL1'04'
OAFE 00	ORFE	164	DC	XL1'00'
OAFP 0B4F	OB00	165	DC	AL2(RTN05)
		166		ROUTINE NUMBER NO MANUAL INTERVENTION REQUIRED.
OB01 OC 09 1EP8 1E66		167	MVC	PRT-81(10),SMTHE
OB07 OC 11 1FOA 1AD6		168	MVC	PRT-63(18),IOTRL
OB0D 3C 4B 1F0B		169	MVI	PRT-62,X'4B'
OB11 CO 87 021A		170	B	PRINT
OB15 46	OB15	171	DC	XL1'46'
OB16 5B	OB16	172	DC	IL1'91'
OB17 1F49	OB18	173	DC	AL2(PRT)
OB19 40A4	OB1A	174	DC	XL2'40A4'
OB1B OC 5A 1F49 1F4A		175	MVC	PRT(91),PRT+1
		176		CLEAR PRINT AREA.
OB21 CO 87 175D		177	B	QUES
OB25 FO 3C 3C		178	HPL	X'3C',X'3C'
		179		TEST FOR SSW 10. HALT -FF- IF ON.
OB28 30 43 0B3D		180	SNS	TRL,X'43'
OB2C OD 01 OB3D OB3B		181	CLC	TRL(2),TRL-2
OB32 CO 81 0216		182	BE	LINK
		183		SENSE I/O TRANSFER LINES FOR 0000. SENSED DATA AS EXPECTED ? RETURN TO DCP IF OK.
		184	*	ROUTINE 04 ERROR MESSAGE *
		185		
OB36 CO 87 13BB		186	B	SNSERR
OB3A 0000	OB3B	187	DC	XL2'0000'
OB3C 0000	OB3D	188	TRL	DC
OB3E 04	OB3E	189	DC	XL2'0000'
				GO PRINT SENSE ERROR. -EXPECTED. -ACTUAL. -ERROR ID.

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OB3F C0 87 17D9		190	B MAPS	POINT TO MAP CHART.
OB43 8781	OB44	191	DC XL2'8781'	-PAGE 878, ENTRY
		192		
OB45 C0 87 0222		193	B HALT	ERROR HALT -04-.
OB49 4004	OB4A	194	DC XL2'4004'	
OB4B C0 87 0216		195	B LINK	RETURN TO DCP.
		196		
		197		
		198 *****		
		199 * RTN05 *		
		200 *****		
		201 *		*
		202 * ROUTINE 05	SENSE THE DIAGNOSTIC BYTE.	*
		203 *		*
		204 *****		*
OB4F 05	OB4F	205 RTN05	DC XL1'05'	ROUTINE NUMBER
OB50 00	OB50	206	DC XL1'00'	NO MANUAL INTERVENTION REQUIRED.
OB51 0BA9	OB52	207	DC AL2(RTN06)	ROUTINE 06 ADDRESS.
		208		
OB53 38 80 0208		209 TBN	SEYTE0,SSW00	TEST FOR LOOP ON SECTION SWITCH.
OB57 C0 10 0216		210 BT	LINK	SKIP THIS ROUTINE IF ON.
		211		
OB58 B0 09 1EFP8 1E66		212 MVC	PRT-81(10),SNTHE	BUILD UP TEST HEADING FOR PRINTING.
OB61 OC 0E 1F07 1BCA		213 MVC	PRT-66(15),DIAG	
OB67 3C 4B 1F08		214 MV	PRT-65,X'4B'	
OB6B C0 87 021A		215 B	PRINT	GO PRINT TEST HEADING.
OB6F 46	OB6F	216 DC	XL1'46'	
OB70 5B	OB70	217 DC	IL1'91'	
OB71 1F49	OB72	218 DC	AL2(PRT)	
OB73 40A5	OB74	219 DC	AL2'40A5'	
OB75 OC 5A 1F49 1F4A		220 MVC	PRT(91),PRT+1	CLEAR PRINT AREA.
		221		
OB7B C0 87 175D		222 B	QUES	TEST FOR SSW 10.
OB7F F0 3C 3C		223 HPL	X'3C',X'3C'	HALT -FF- IF ON.
		224		
OB82 30 45 OB97		225 SES	DUG,X'45'	SENSE DIAGNOSTIC BYTE FOR 00.
OB86 OD 00 OB96 OB94		226 CLC	DUG-1(1),DUG-3	SENSED DATA AS EXPECTED ?
OB8C C0 81 0216		227 BE	LINK	RETURN TO DCP IF OK.
		228		
		229 * ROUTINE 05 ERROR MESSAGE *		
		230		
OB90 C0 87 13BB		231 B	SNSERR	GO PRINT SENSE ERROR.
OB94 0000	OB95	232 DC	XL2'0000'	-EXPECTED.
OB96 0000	OB97	233 DUG	DC XL2'0000'	-ACTUAL.
OB98 05	OB98	234 DC	XL1'05'	-ERROR ID.
OB99 C0 87 17D9		235 B	MAPS	POINT TO MAP CHART.
OB9D 8811	OB9E	236 DC	XL2'8811'	-PAGE 881, ENTRY 1.
		237		
OB9F C0 87 0222		238 B	HALT	ERROR HALT -05-.
OBAA 4005	OBAA	239 DC	XL2'4005'	
OBAB C0 87 0216		240 B	LINK	RETURN TO DCP.
		241		
		242		
		243 *****		
		244 * RTN06 *		
		245 *****		
		246 *		*
		247 * ROUTINE 06	CHECK EB CYCLES FOR PROPER	*
		248 *	DATA TRANSMISSION.	*
		249 *		*
		250 *****		
OBAA 06	OBAA	251 RTN06	DC XL1'06'	ROUTINE NUMBER
OBAA 00	OBAA	252 DC	XL1'00'	NO MANUAL INTERVENTION REQUIRED
OBAB 0D37	OBAC	253 DC	AL2(BTN07)	ROUTINE 07 ADDRESS
		254		
OBAD C0 87 021A		255 B	PRINT	PRINT EB CYCLE TEST HEADING.
OBBA 45	OBBA	256 DC	XL1'45'	
OBBA 24	OBBA	257 DC	IL1'36'	

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ERR LOC OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	
0BB3 1B88	0BB4	258	DC AL2(TSCYC)	
0BB5 40A6	0BB6	259	DC X12'40A6'	
		260		
0BB7 C1 42 17BF	261	TIO DROPD,X'42'	JUMP OUT IF 3741 IS BUSY.	
	262			
0BBB C0 87 175D	263	B QUES	TEST FOR SSW 10.	
0BBF F0 3C 3C	264	HPL X'3C',X'3C'	HALT -FF- IF ON.	
	265			
0BC2 31 41 18F2	266	LIO HFP55,X'41'	LOAD FUNCTION REG. WITH -FF55-.	
0BC6 31 42 18F2	267	LIO HFP55,X'42'	LOAD LENGTH COUNT REG WITH -55-.	
0BCA 31 44 18F2	268	LIO HFP55,X'44'	LOAD DATA ADRS REG WITH -FF55-.	
0BCE 31 45 18F2	269	LIO HFP55,X'45'	LOAD DATA TRANS REG WITH -55-.	
	270			
0BD2 30 41 190F	271	SNS LS-6,X'41'	SENSE FUNCTION REGISTER.	
0BD6 30 42 1911	272	SNS LS-4,X'42'	SENSE STATUS AND LCR.	
0BDA 30 44 1913	273	SNS LS-2,X'44'	SENSE DATA ADRS REGISTER.	
0BDE 30 45 1915	274	SNS LS,X'45'	SENSE DIAG AND DATA TRANS REG.	
	275			
0BE2 C2 01 1915	276	LA LS,XR1	INITIALIZE SENSE STORAGE ADDRESS.	
0BE6 34 01 0BFS	277	ST CKBIT+3,XR1		
0BEA 3C 00 191D	278	MVI EBFLAG,X'00'	CLEAR EB FLAG.	
0BEE 3C 01 0BFB	279	MVI STBN+1,X'01'	INITIALIZE FLAG BIT POINTER.	
	280			
0BF2 3D 00 0000	281	CKBYT CLI **-,X'00'	TEST CURRENT SENSE BYTE.	
0BF6 C0 01 0BFE	282	BNE **8	BRANCH IF BYTE NOT ZERO.	
0BFA 3A 00 191D	283	STBN SBN EBFLAG,X'00'	TURN ON FLAG BIT IF ZERO.	
0BFE 0E 00 0BFB 0BFB	284	ALC STBN+1(1),STBN+1	SHIFT BIT POINTER.	
0C04 0F 01 0BFS 18D0	285	SLC CKBIT+3(2),N001	DECREMENT SENSE ADDRESS.	
0COA 39 FF 0BFB	286	TBF STBN+1,X'FF'	POINTER GONE TO ZERO ?	
0COE C0 90 0BF2	287	BF CKBYT	CONTINUE TO LOOP IF NOT SO.	
	288			
	289 *	ANALYZE THE EB FLAG BYTE.		
	290			
0C12 3D F3 191D	291	CLI EBFLAG,X'F3'		
0C16 C0 81 0C94	292	BE EBERR	BRANCH IF BOTH EB1 AND EB2 FAILED.	
0C1A 3D 53 191D	293	CLI EBFLAG,X'53'		
0C1E C0 81 0C7E	294	BE EB1ERR	BRANCH IF EB1 FAILED.	
0C22 3D A2 191D	295	CLI EBFLAG,X'A2'		
0C26 C0 81 0C86	296	BE EB2ERR	BRANCH IF EB2 FAILED.	
	297			
0C2A 3D C0 191D	298	CLI EBFLAG,X'C0'		
0C2E C0 81 0C9E	299	BE NCOD1	BRANCH IF BOTH EB'S OF N=1 FAILED.	
0C32 3D 30 191D	300	CLI EBFLAG,X'30'		
0C36 C0 81 0CA5	301	BE NCOD2		*
0C3A 3D 0C 191D	302	CLI EBFLAG,X'0C'		2 *
0C3E C0 81 0CAC	303	BE NCOD4		4 *
	304			
0C42 38 40 191F	305	TBN EBFLAG,X'40'		
0C46 C0 10 0CBA	306	BT NCODD1	BRANCH IF EB1 OF N=1 FAILED.	
0C4A 38 80 191D	307	TBN EBFLAG,X'80'		
0C4E C0 10 0CBA	308	BT NCODD1		
0C52 38 10 191D	309	TBN EBFLAG,X'10'		
0C56 C0 10 0CD5	310	BT NCODD2		
0C5A 38 20 191D	311	TBN EBFLAG,X'20'		
0C5E C0 10 0CD5	312	BT NCODD2		
0C62 38 04 191D	313	TBN EBFLAG,X'04'		
0C66 C0 10 0CF0	314	BT NCODD4		
0C6A 38 08 191D	315	TBN EBFLAG,X'08'		
0C6E C0 10 0CF0	316	BT NCODD4		
0C72 38 01 191D	317	TBN EBFLAG,X'01'		
0C76 C0 10 0D0B	318	BT NCODD5		
	319			
0C7A C0 87 0216	320	B LINK	RETURN TO DCP.	
	321			
	322 *	ROUTINE 06 ERROR MESSAGES *		
	323			
0C7E 3C F1 1B88	324	EB1ERR MVI ALBX-15,C'1'	SET UP FOR EB 1 ERROR.	
0C82 C0 87 0C8A	325	B **8		

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OC86 3C F2 1B88	326	EB2ERR	MVI	ALEBX-15,C'2'
OC8A 3C 17 1F06 1B97	327		MVC	PRT-67(24),ALEBX
OC90 C0 87 0D19	328		B	BIGEB
	329			
OC94 3C 16 1F05 1B7F	330	EBERR	MVI	PRT-68(23),ALEB
OC9A C0 87 0D19	331		B	BIGEB
	332			
OC9E 3C F1 1B67	333	NCOD1	MVI	EB12-1,C'1'
0CA2 F2 87 0B	334		J	FINEB
0CA5 3C F2 1B67	335	NCOD2	MVI	EB12-1,C'2'
0CA9 F2 87 04	336		J	FINEB
0CAC 3C F4 1B67	337	NCOD4	MVI	EB12-1,C'4'
0CB0 3C 21 1F10 1B68	338	FINEB	MVC	PRT-57(34),EB12
0CB6 C0 87 0D19	339		B	BIGEB
	340			
0CBA 3C F1 1B45	341	NCODD1	MVI	EBX-1,C'1'
0CBE 38 40 191D	342		TBN	EBFLAG,X'40'
0CC2 C0 10 0CCE	343		BT	**+12
0CC6 3C F2 1B2E	344		MVI	EBX-24,C'2'
0CCA C0 87 0CD2	345		B	**+8
0CCE 3C F1 1B2E	346		MVI	EBX-24,C'1'
0CD2 F2 87 3E	347		J	EBXX
0CD5 3C F2 1B45	348	NCODD2	MVI	EBX-1,C'2'
0CD9 38 10 191D	349		TBN	EBFLAG,X'10'
0CDD C0 10 0CE9	350		BT	**+12
0CE1 3C F2 1B2E	351		MVI	EBX-24,C'2'
0CE5 C0 87 0CED	352		B	**+8
0CE9 3C F1 1B2E	353		MVI	EBX-24,C'1'
0CRD F2 87 23	354		J	EBXX
0CF0 3C F4 1B45	355	NCODD4	MVI	EBX-1,C'4'
0CF4 38 04 191D	356		TBN	EBFLAG,X'04'
0CF8 C0 10 0D04	357		BT	**+12
0CFC 3C F2 1B2E	358		MVI	EBX-24,C'2'
0D00 C0 87 0D08	359		B	**+8
0D04 3C F1 1B2E	360		MVI	EBX-24,C'1'
0D08 F2 87 08	361		J	EBXX
	362			
0D0B 3C F5 1B45	363	NCODD5	MVI	EBX-1,C'5'
0D0F 3C F1 1B2E	364		MVI	EBX-24,C'1'
0D13 C0 1C 1F0B 1B46	365	EByX	MVC	PRT-62(29),EBX
	366			
0D19 C0 87 021A	367	BIGEB	B	PRINT
0D1D C2	368		DC	XL1'C2'
0D1E 18	369		DC	IL1'24'
0D1F 1B29	370		DC	AL2(BIGEB)
0D21 4006	371		DC	XL2'4006'
0D23 C0 87 18A7	372		B	EPRNT2
0D27 C0 87 17D9	373		B	MAPS
0D2B 8851	374		DC	XL2'8851'
0D2D C0 87 0222	375		B	HALT
0D31 4006	376		DC	XL2'4006'
0D33 C0 87 0216	377		B	LINK
	378			
	379			
	380	*****		
	381	* RTN07 *		
	382	*****		
	383	*		
	384	*	ROUTINE 07	LIO & SNS FUNCTION REG WITH AA55.
	385	*		
	386	*****		
0D37 07	387	RTN07	DC	XL1'07'
0D38 00	388		DC	XL1'00'
0D39 0D6F	389		DC	AL2(RTN08)
	390			
0D3B C0 01 1919 18E0	391		MVC	PATRN(2),AA55
0D41 C0 87 1800	392		B	CODE
0D45 F1	393		DC	CL1'1'

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ERR LOC OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	
OD46 C0 87 175D	394			
OD4A F0 3C 3C	395	B	QUES	TEST FOR SSW 10.
	396	HPL	X'3C', X'3C'	HALT -FF- IF ON.
	397			
OD4D 31 41 1919	398	LIO	PATRN, X'41'	LOAD FUNCTION REG WITH -AA55-.
OD51 30 41 1917	399	SNS	LSCK, X'41'	SENSE FUNCTION REG FOR -AA55-.
	400			
OD55 C0 87 1488	401	B	LIO\$NS	GO COMPARE RESULT WITH EXPECTED.
OD59 07	402	DC	XL1'07'	-ERROR ID.
OD5A F1	403	DC	CL1'1'	-N CODE.
OD5B C0 87 0216	404	B	LINK	RETURN TO DCP IF OK.
	405			
OD5F C0 87 17D9	406	B	MAPS	POINT TO MAP CHART.
OD63 8891	407	DC	XL2'8891'	-PAGE 889, ENTRY 1.
OD65 C0 87 0222	408	B	HALT	ERROR HALT -07-.
OD69 4007	409	DC	XL2'4007'	
OD6B C0 87 0216	410	B	LINK	RETURN TO DCP.
	411			
	412			
	413 *****			
	414 * RTN08 *			
	415 *****			
OD6F 08	416 *			*
OD70 00	417 * ROUTINE 08	LIO & SNS	ROUTINE 08 LIO & SNS FUNCTION REG WITH 55AA.	*
OD71 0DA7	418 *			*
	419 *****			*
	OD6F 420	RTN08 DC	XL1'08'	ROUTINE NUMBER
	OD70 421	DC	XL1'00'	NO MANUAL INTERVENTION REQUIRED
	OD71 422	DC	AL2(RTN09)	ROUTINE 09 ADDRESS
	423			
OD73 0C 01 1919 18E2	424	MVC	PATRN(2), H55AA	STORE TEST PATTERN.
OD79 C0 87 1800	425	B	CODE	PRINT TEST HEADING.
OD7D F1	426	DC	CL1'1'	
	427			
OD7E C0 87 175D	428	B	QUES	TEST FOR SSW 10.
OD82 F0 3C 3C	429	HPL	X'3C', X'3C'	HALT -FF- IF ON.
	430			
OD85 31 41 1919	431	LIO	PATRN, X'41'	LOAD FUNCTION REG WITH -55AA-.
OD89 30 41 1917	432	SNS	LSCK, X'41'	SENSE FUNCTION REG FOR -55AA-.
	433			
OD8D C0 87 1488	434	B	LIO\$NS	GO COMPARE RESULT WITH EXPECTED.
OD91 08	435	DC	XL1'08'	-ERROR ID.
OD92 F1	436	DC	CL1'1'	-N CODE.
OD93 C0 87 0216	437	B	LINK	RETURN TO DCP IF OK.
	438			
OD97 C0 87 17D9	439	B	MAPS	POINT TO MAP CHART.
OD98 8891	440	DC	XL2'8891'	-PAGE 889, ENTRY 1.
OD9D C0 87 0222	441	B	HALT	ERROR HALT -08-.
ODA1 4008	442	DC	XL2'4008'	
ODA3 C0 87 0216	443	B	LINK	RETURN TO DCP.
	444			
	445			
	446 *****			
	447 * RTN09 *			
	448 *****			
ODA7 09	449 *			*
ODA8 00	450 * ROUTINE 09	LIO & SNS	ROUTINE 09 LIO & SNS LENGTH COUNT REG WITH 55.	*
ODA9 0DE3	451 *			*
	452 *****			*
	ODA7 453	RTN09 DC	XL1'09'	ROUTINE NUMBER
	ODA8 454	DC	XL1'00'	NO MANUAL INTERVENTION REQUIRED
	ODA9 455	DC	AL2(RTN0A)	ROUTINE 0A TEST
	456			
ODAB 0C 01 1919 18E6	457	MVC	PATRN(2), H0055	STORE TEST PATTERN.
ODB1 C0 87 1800	458	B	CODE	PRINT TEST HEADING.
ODB5 F2	459	DC	CL1'2'	
	460			
ODB6 C0 87 175D	461	B	QUES	TEST FOR SSW 10.

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ERR LOC OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	
ODBA F0 3C 3C	462	HPL	X'3C',X'3C'	HALT -FF- IF ON.
	463			
ODBD 31 42 1919	464	LIO	PATRN,X'42'	LOAD LENGTH COUNT REG WITH -55-.
ODC1 30 42 1917	465	SNS	LSCK,X'42'	SENSE STATUS AND LCR FOR -8055-.
	466			
ODC5 3C 00 1916	467	MVI	LSCK-1,X'00'	CLEAR STATUS BYTE.
	468			
ODC9 C0 87 1488	469	B	LIOSNS	GO COMPARE RESULT WITH EXPECTED.
ODCD 09	ODCD 470	DC	XL1'09'	-ERROR ID.
ODCE F2	ODCE 471	DC	CL1'2'	-N CODE.
ODCF C0 87 0216	472	B	LINK	RETURN TO DCP IF OK.
	473			
ODD3 C0 87 17D9	474	B	MAPS	POINT TO MAP CHART.
ODD7 8911	ODD8 475	DC	XL2'8911'	-PAGE 891, ENTRY 1.
ODD9 C0 87 0222	476	B	HALT	ERROR HALT -09-.
ODDD 4009	ODDE 477	DC	XL2'4009'	
ODDF C0 87 0216	478	B	LINK	RETURN TO DCP.
	479			
	480			
	481 *****			
	482 * RTNOA *			
	483 *****			
	484 *			*
	485 * ROUTINE OA		LIO & SNS LENGTH COUNT REG WITH AA.	*
	486 *			*
	487 *****			*
ODE3 0A	ODE3 488	RTNOA	DC XL1'0A'	ROUTINE NUMBER
ODE4 00	ODE4 489	DC	XL1'00'	NO MANUAL INTERVENTION REQUIRED
ODE5 0E42	ODE6 490	DC	AL2(RTNOB)	ROUTINE OB ADDRESS
	491			
ODE7 0C 01 1919 18EA	492	MVC	PATRN(2),H00AA	STORE TEST PATTERN.
ODED C0 87 1800	493	B	CODE	PRINT TEST HEADING.
ODF1 F2	ODF1 494	DC	CL1'2'	
	495			
ODF2 C0 87 175D	496	B	QUES	TEST FOR SSW 10.
ODF6 F0 3C 3C	497	HPL	X'3C',X'3C'	HALT -FF- IF ON.
	498			
ODF9 31 42 1919	499	LIO	PATRN,X'42'	LOAD LENGTH COUNT REG WITH -AA-.
ODFD 30 42 1917	500	SNS	LSCK,X'42'	SENSE STATUS & LCR FOR -80AA-.
	501			
OE01 0D 00 18EE 1917	502	CLC	FFFFF(1),LSCK	WAS OLD PATTERN ERASED ?
OE07 F2 81 1E	503	JE	EROA	JUMP IF NOT ERASED.
	504			
OE0A 3C 00 1916	505	MVI	LSCK-1,X'00'	CLEAR STATUS BYTE.
	506			
OE0E C0 87 1488	507	B	LIOSNS	GO COMPARE RESULT WITH EXPECTED.
OE12 0A	OE12 508	DC	XL1'0A'	-ERROR ID.
OE13 F2	OE13 509	DC	CL1'2'	-N CODE.
OE14 C0 87 0216	510	B	LINK	RETURN TO DCP IF OK.
	511			
OE18 C0 87 17D9	512	B	MAPS	POINT TO MAP CHART.
OE1C 8911	OE1D 513	DC	XL2'8911'	-PAGE 891, ENTRY 1.
OE1E C0 87 0222	514	B	HALT	ERROR HALT -0A-.
OE22 400A	OE23 515	DC	XL2'400A'	
OE24 C0 87 0216	516	B	LINK	RETURN TO DCP.
	517			
	518 * ROUTINE OA ERROR MESSAGE *			
	519			
OE28 C0 87 021A	520	EROA	B PRINT	PRINT LENGTH COUNT NOT RESET.
OE2C C2	OE2C 521	DC	XL1'C2'	
OE2D 2B	OE2D 522	DC	XL1'43'	
OE2E 1C0B	OE2F 523	DC	AL2(LIORST)	
OE30 400C	OE31 524	DC	XL2'400C'	
OE32 C0 87 17D9	525	B	MAPS	POINT TO MAP CHART.
OE36 8912	OE37 526	DC	XL2'8912'	-PAGE 891, ENTRY 2.
OE38 C0 87 0222	527	B	HALT	ERROR HALT -0C-.
OE3C 400C	OE3D 528	DC	XL2'400C'	
OE3E C0 87 0216	529	B	LINK	RETURN TO DCP.

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ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT

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531 *****
532 * RTNOB *
533 *****
534 *
535 * ROUTINE OB      LIO & SNS DATA ADDRESS REG WITH EVEN TEST
536 *                  PATTERNS, -55AA- AND -AA55-.
537 *
538 *****
0E42 OB      0E42 539 RTNOB DC   XL1'0C'          ROUTINE NUMBER
0E43 00     0E43 540 DC   XL1'00'          NO MANUAL INTERVENTION REQUIRED
0E44 0E98    0E45 541 DC   AL2(RTNOC)        ROUTINE OC ADDRESS
0E46 0C 03 1C7D 1C8F 542
0E4C C0 87 021A 543 MVC  VNOD(4), EVEN
0E50 46      0E50 544 B    PRINT
0E51 38      0E51 545 DC   XL1'46'
0E52 1C8B    0E53 546 DC   IL1'56'
0E54 40AB    0E55 547 DC   AL2(LSDAR)
0E56 C0 87 175D 548 DC   XL2'40AB'
0E5A F0 3C 3C 549
0E5D 31 44 18E2 550 B    QUES
0E61 30 44 1917 551 HPL  X'3C', X'3C'
0E65 0D 01 18E2 1917 552
0E6B F2 01 12   553 LIO  H55AA, X'44'
0E6E 31 44 18E0 554 SNS  LSCK, X'44'
0E72 30 44 1917 555 CLC  H55AA(2), LSCK
0E76 0D 01 18E0 1917 556 JNE  DARCK
0E7C C0 81 0216 557
0E80 C0 87 021A 558 LIO  HAA55, X'44'
0E84 C6      0E84 559 SNS  LSCK, X'44'
0E85 50      0E85 560 CLC  HAA55(2), LSCK
0E86 1AA3    0E87 561 BE   LINK
0E88 C0 87 17D9 562
0E8C 8913    0E8D 563 DARCK B   PRINT
0E8E C0 87 0222 564 DC   XL1'C6'
0E92 4067    0E85 565 DC   AL1(MSG4-MSG4B)
0E94 C0 87 0216 566 DC   AL2(MSG4)
0E98 0C      0E98 567
0E99 00      0E99 568 B   MAPS
0E9A 0E97    0E98 569 DC   XL2'8913'
0E9C 0C 03 1C7D 1C93 570
0E9D 0C 03 1C7D 1C93 571 B   HALT
0E9E 0C 03 1C7D 1C93 572 DC   XL2'4067'
0E9F 0C 03 1C7D 1C93 573
0EA0 0C 03 1C7D 1C93 574 B   LINK
0EA1 0C 03 1C7D 1C93 575
0EA2 0C 03 1C7D 1C93 576
0EA3 0C 03 1C7D 1C93 577 *****
0EA4 0C 03 1C7D 1C93 578 * RTNOC *
0EA5 0C 03 1C7D 1C93 579 *****
0EA6 46      0EA6 578
0EA7 38      0EA7 579 * ROUTINE OC      LIO & SNS DATA ADDRESS REG WITH ODD TEST
0EA8 1C8B    0EA8 580 *                  PATTERNS, -1000- AND -0001-.
0EA9 40AC    0EA9 581 *
0EA10 40AC   0EA10 582 *
0EA11 40AC   0EA11 583 *
0EA12 40AC   0EA12 584 *****
0E98 0C      0E98 585 RTNOC DC   XL1'0C'          ROUTINE NUMBER
0E99 00      0E99 586 DC   XL1'00'          NO MANUAL INTERVENTION REQUIRED.
0E9A 0E97    0E98 587 DC   AL2(RTNOD)        ROUTINE OC ADDRESS
0E9B 0C 03 1C7D 1C93 588
0E9C 0C 03 1C7D 1C93 589 MVC  VNOD(4), ODD
0E9D 0C 03 1C7D 1C93 590 B   PRINT
0E9E 0C 03 1C7D 1C93 591 DC   XL1'46'
0E9F 0C 03 1C7D 1C93 592 DC   IL1'56'
0EA0 0C 03 1C7D 1C93 593 DC   AL2(LSDAR)
0EA1 0C 03 1C7D 1C93 594 DC   XL2'40AC'
0EA2 0C 03 1C7D 1C93 595
0EA3 0C 03 1C7D 1C93 596 B   QUES
0EA4 0C 03 1C7D 1C93 597 HPL  X'3C', X'3C'
0EA5 0C 03 1C7D 1C93 598

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ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	
	0EBB3 31 44 18E4	599	LIO	H1000,X'44'	LOAD DATA ADRS REG WITH -1000-.
	0EB7 30 44 1917	600	SNS	LSCK,X'44'	SENSE DATA ADRS REGISTER.
		601			
	0EBB 31 44 18D0	602	LIO	H0001,X'44'	LOAD DATA ADRS REG WITH -0001-.
	0EBF 30 44 1917	603	SNS	LSCK,X'44'	SENSE DATA ADRS RPGISTER.
		604			
	0EC3 C0 87 0216	605	B	LINK	RETURN TO DCP.

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4311 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR LOC OBJECT CODE ADDR STM SOURCE STATEMENT

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607 *****
608 * RTNOD *
609 *****
610 *
611 * ROUTINE OD      LIO & SNS DATA TRANSFER REG WITH 55.
612 *
613 *****
OEC7 OD      OEC7 614 RTNOD DC  XL1'0D'      ROUTINE NUMBER
OEC8 00      OEC8 615   DC  XL1'00'      NO MANUAL INTERVENTION REQUIRED
OEC9 0F03      OEC9 616   DC  AL2(RTNOE)    ROUTINE OE ADDRESS
617
OECB 0C 01 1919 18E6 618   MVC  PATRN(2),H0055  STORE TEST PATTERN.
OED1 C0 87 1800 619   B    CODE          PRINT TEST HEADING.
OED5 F5      OED5 620   DC  CL1'5'       *
621
OED6 C0 87 175D 622   B    QUES          TEST FOR SSW 10.
OEDA F0 3C 3C 623   HPL  X'3C',X'3C'  HALT -PF- IF ON.
624
OEDD 31 45 1919 625   LIO  PATRN,X'45'  LOAD DATA TRANS REG WITH -55-.
OEE1 30 45 1917 626   SNS  LSCK,X'45'  SENSE DIAG AND DTR FOR -0055-.
627
OEE5 3C 00 1916 628   MVI  LSCK-1,X'00'  CLEAR DIAGNOSTIC BYTE.
629
OEE9 C0 87 1488 630   B    LIOSNS      GO COMPARE RESULT WITH EXPECTED.
OEE9 10      OEE9 631   DC  XL1'10'      -ERROR ID.
OEEE F5      OEEE 632   DC  CL1'5'      -N CODE.
OEEF C0 87 0216 633   B    LINK        RETURN TO DCP IF OK.
634
OEP3 C0 87 17D9 635   B    MAPS          POINT TO MAP CHART.
OEP7 8931      OEP7 636   DC  XL2'8931'  -PAGE 893, ENTRY 1.
OEP9 C0 87 0222 637   B    HALT          ERROR HALT -10-.
OEPD 4010      OEPD 638   DC  XL2'4010'  *
OEFF C0 87 0216 639   B    LINK        RETURN TO DCP.
640
641
642 *****
643 * RTNOE *
644 *****
645 *
646 * ROUTINE OE      LIO & SNS DATA TRANSFER REG WITH AA.
647 *
648 *****
OP03 0E      OP03 649 RTNOE DC  XL1'0E'      ROUTINE NUMBER
OP04 00      OP04 650   DC  XL1'00'      NO MANUAL INTERVENTION REQUIRED
OP05 0F3F      OP05 651   DC  AL2(RTNOF)    ROUTINE OF ADDRESS
652
OP07 0C 01 1919 18EA 653   MVC  PATRN(2),H00AA  STORE TEST PATTERN.
OP0D C0 87 1800 654   B    CODE          PRINT TEST HEADING.
OP11 F5      OP11 655   DC  CL1'5'       *
656
OP12 C0 87 175D 657   B    QUES          TEST FOR SSW 10.
OP16 F0 3C 3C 658   HPL  X'3C',X'3C'  HALT -PF- IF ON.
659
OP19 31 45 1919 660   LIO  PATRN,X'45'  LOAD DATA TRANS REG WITH -AA-.
OP1D 30 45 1917 661   SNS  LSCK,X'45'  SENSE DIAG & DTR FOR -00AA-.
662
OP21 3C 00 1916 663   MVI  LSCK-1,X'00'  CLEAR DIAGNOSTIC BYTE.
664
OP25 C0 87 1488 665   B    LIOSNS      GO COMPARE RESULT WITH EXPECTED.
OP29 11      OP29 666   DC  XL1'11'      -ERROR ID.
OP2A F5      OP2A 667   DC  CL1'5'      -N CODE.
OP2B C0 87 0216 668   B    LINK        RETURN TO DCP IF OK.
669
OP2F C0 87 17D9 670   B    MAPS          POINT TO MAP CHART.
OP33 8931      OP33 671   DC  XL2'8931'  -PAGE 893, ENTRY 1.
OP35 C0 87 0222 672   B    HALT          ERROR HALT -11-.
OP39 4011      OP39 673   DC  XL2'4011'  *
OP36 C0 87 0216 674   B    LINK        RETURN TO DCP.

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ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT

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676 *****
677 * RTNOF *
678 *****
679 *
680 * ROUTINE OF ISSUE A SIO ENABLE INTERRUPT.
681 *
682 *****
0F3F OF 0F3F 683 RTNOF DC XL1'OF' ROUTINE NUMBER
0F40 00 0F40 684 DC XL1'00' NO MANUAL INTERVENTION REQUIRED
0F41 0FC1 0F42 685 DC AL2(RTN10) ROUTINE 10 ADDRESS
686
0F43 C0 87 1576 687 B SIOHD PRINT TEST HEADING.
0F47 AF 0F47 688 DC XL1'AF' MESSAGE ID.
0F48 B2C5E340C5D5C1C2 0F64 689 DC CL29'SET ENABLE INTERRUPT LATCH.'
0F50 D3C540C9D5E3C5D9 689
0F58 D9E4D7B340D3C1E3 689
0F60 C3C84B4040 689
0F65 C1 42 17BF 690 TIO DROPPD,X'42' MAKE SURE 3741 IS NOT BUSY.
0F69 35 84 18FA 691 L INTR5,IARS LOAD IAR 5 REGISTER. (IN CASE OF INT)
0F6D 3B 01 18C1 692 SBF FLAG,X'01' RESET ERROR FLAG
0F71 C0 87 175D 693 B QUES TEST FOR SSW 10.
0F75 F0 3C 3C 694 HPL X'3C',X'3C' HALT -FF- IF ON.
695
0F78 31 41 18DE 696 LIO R0080,X'41' SET FUNC REG TO DIAG MODE.
0F7C FJ 40 02 697 SIO X'02',X'40' ISSUE ENABLE INTERRUPT.
0F7F 30 45 18PC 698 SNS DTR,X'45' SENSE DIAG BYTE FOR -10-.
0F83 38 01 18C1 699 TBN FLAG,X'01' ERROR FLAG SET ?
0F87 F2 10 1D 700 JT BADINT JUMP IF SO.
0F8A 3C 10 191C 701 MVI XPCT,X'10' STORE EXPECTED RESULT.
0F8E C0 87 15B0 702 B CKSIO GO CHECK EXPECTED WITH RESULT.
0F92 12 0F92 703 DC XL1'12' ERROR ID.
0F93 C0 87 0216 704 B LINK RETURN TO DCP IF OK.
705
0F97 C0 87 17D9 705 B MAPS POINT TO MAP CHART.
0F9B 8951 0F9C 706 DC XL2'8951' -PAGE 895, ENTRY 1.
0F9D C0 87 0222 708 B HALT ERROR HALT -12-.
0FA1 4012 0FA2 709 DC XL2'4012' RETURN TO DCP.
710 B LINK
711
0FA7 C0 87 021A 712 BADINT B PRINT PRINT INTERRUPT CHECK.
0FAB C2 0FAB 713 DC XL1'C2' 
0FAC 15 0FAC 714 DC IL1'21'
0FAD 1EEE 0FAE 715 DC AL2(SIOC4)
0FAF 401A 0FB0 716 DC XL2'401A'
0FB1 C0 87 17D9 717 B MAPS PRINT MAP CHART REFERENCE.
0FB5 8952 0FB6 718 DC XL2'8952' -PAGE 895, ENTRY 2.
0FB7 C0 87 0222 719 B HALT ERROR HALT -1A-.
0FB8 401A 0FBC 720 DC XL2'401A' RETURN TO DCP.
721 B LINK
722 *****
723 * RTN10 *
724 *****
725 *
726 * ROUTINE 10 ISSUE A RESET INTERRUPT.
727 *
728 *****
0FC1 10 0FC1 729 RTN10 DC XL1'10' ROUTINE NUMBER
0FC2 00 0FC2 730 DC XL1'00' NO INTERVENTION REQUIRED
0FC3 1022 0FC4 731 DC AL2(RTN11) ROUTINE 11 ADDRESS
732
0FC5 C0 87 1576 733 B SIOHD PRINT TEST HEADING.
0FC9 B0 0FC9 734 DC XL1'B0' MESSAGE ID.
0FCA D9C5E2C5E340C5D5 0FE6 735 DC CL29'RESET ENABLE INTERRUPT LATCH.'
0FD2 C1C2D3C540C9D5E3 735
0FDA C5D9D9E4D7E340D3 735
0FE2 C1E3C3C843 735
0FE7 C1 42 17BF 736 TIO DROPPD,X'42' MAKE SURE 3741 IS NOT BUSY.
737

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ERR/LOC OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	
0FEB C0 87 175D	738	B	QUES	TEST FOR SSW 10.
0FEP F0 3C 3C	739	HPL	X'3C', X'3C'	HALT -FF- IF ON.
	740			
0FF2 31 41 18DE	741	LIO	H0080, X'41'	SET TO DIAGNOSTIC MODE.
0FF6 F3 40 02	742	SIO	X'02', X'40'	ISSUE ENABLE INTERRUPT.
0FF9 F3 40 04	743	SIO	X'04', X'40'	ISSUE INTERRUPT RESET.
0FFC 30 45 18FC	744	SNS	DTR, X'45'	SENSE DIAG BYTE FOR -00-.
	745			
1000 38 10 18FB	746	TBN	DTR-1, X'10'	DID ENABLE BIT GET RESET ?
1004 C0 90 0216	747	BP	LINK	RETURN TO DCP IF YES.
	748			
	749 * ROUTINE 10 ERROR MESSAGE *			
	750			
1008 C0 87 021A	751	B	PRINT	PRINT RESET CHECK.
100C C2	100C	DC	XL1'C2'	
100D 1D	100D	DC	IL1'29'	
100E 1D48	100F	DC	AL2(INTR)	
1010 4013	1011	DC	XL2'4013'	
1012 C0 87 17D9	756	B	MAPS	POINT TO MAP CHART.
1016 8971	1017	DC	XL2'8971'	-PAGE 897, ENTRY 1.
	757			
1018 C0 87 0222	759	B	HALT	ERROR HALT -13-.
101C 4013	101D	DC	XL2'4013'	
101E C0 87 0216	760	B	LINK	RETURN TO DCP.
	761			
	762			
	763			
	764 *****			
	765 * RTN11 *			
	766 *****			
	767 *			
	768 * ROUTINE 11		ISSUE A READ COMMAND.	*
	769 *			*
	770 *****			*
1022 11	1022	RTN11	DC XL1'11'	ROUTINE NUMBER
1023 00	1023	DC	XL1'00'	NO MANUAL INTERVENTION REQUIRED
1024 108A	1025	DC	AL2(RTN12)	ROUTINE 12 ADDRESS
	771			
1026 C0 87 1576	775	B	SIOHD	PRINT TEST HEADING.
102A B1	102A	DC	XL1'B1'	MESSAGE ID.
102B E2C5E340D9C5C1C4	1047	DC	CL29'SET READ CALL LATCH.'	
1033 40C3C1D3D340D3C1	777			
103B E3C3C84B40404040	777			
1043 4040404040	777			
1048 C1 42 17BF	778	TIO	DROPD, X'42'	MAKE SURE 3741 IS NOT BUSY.
	779			
104C C0 87 175D	780	B	QUES	TEST FOR SSW 10.
1050 F0 3C 3C	781	HPL	X'3C', X'3C'	HALT -FF- IF ON.
	782			
1053 31 41 18DE	783	LIO	H0080, X'41'	SET TO DIAGNOSTIC MODE.
1057 F3 41 00	784	SIO	X'00', X'41'	ISSUE A READ CALL.
105A C1 42 17BF	785	TIO	TIOERB, X'42'	BRANCH IF 3741 BUSY.
105E 30 45 18FC	786	SNS	DTE, X'45'	SENSE DIAG BYTE FOR -03-.
	787			
1062 3C 03 191C	788	MVI	XPCT, X'03'	STORE EXPECTED RESULT.
1066 C0 87 15B0	789	B	CKSIO	GO CHECK EXPECTED WITH RESULT.
106A 14	106A	DC	XL1'14'	ERROR ID.
106B C0 87 107F	790	B	DORST	GO CHECK FOR RESET IF OK.
	791			
	792			
106F C0 87 17D9	793	B	MAPS	POINT TO MAP CHART.
1073 8991	1074	DC	XL2'8991'	-PAGE 899, ENTRY 1.
1075 C0 87 0222	795	B	HALT	ERROR HALT -14-.
1079 4014	107A	DC	XL2'4014'	
107B C0 87 0216	796	B	LINK	RETURN TO DCP.
	797			
	798			
107F F3 40 08	799	DORST	SIO X'08', X'40'	DO A READ CALL RESET.
1082 30 45 18FE	800	SNS	TEMP, X'45'	SENSE DIAG BYTE FOR -00-.
1086 C0 87 10EA	801	B	CKRST	GO CHECK DIAG BYTE FOR RESET.
	802			

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT

		803		
		804 *****		
		805 * RTN12 *		
		806 *****		
		807 *		*
		808 * ROUTINE 12	ISSUE A WRITE COMMAND.	*
		809 *		*
		810 *****		*
108A 12	108A	811 RTN12 DC XL1'12'	ROUTINE NUMBER	
108B 00	108B	812 DC XL1'00'	NO MANUAL INTERVENTION	
108C 1118	108D	813 DC AL2(RTN13)	ROUTINE 13 ADDRESS	
		814		
108E C0 87 1576		815 B SIOHD	PRINT TEST HEADING.	
1092 B2	1092	816 DC XL1'B2'	MESSAGE ID.	
1093 E2C5E34086D9C9E3	10AF	817 DC CL29'SET WRITE CALL LATCH.'		
109B C540C3C1D3D340D3		817		
10A3 C1E3C3C94B404040		817		
10AB 4040404040		817		
10B0 C1 42 17BF		818 TIO DROPD,X'42'	MAKE SURE 3741 IS NOT BUSY.	
		819		
10B4 C0 87 175D		820 B QUES	TEST FOR SSW 10.	
10B8 F0 3C 3C		821 RPL X'3C',X'3C'	HALT -PP- IF ON.	
		822		
10BB 31 41 18DE		823 LIO H0080,X'41'	SET TO DIAGNOSTIC MODE.	
10BF F3 42 00		824 SIO X'00',X'42'	ISSUE A WRITE CALL.	
10C2 30 45 18FC		825 SNS DTR,X'45'	SENSE DIAG BYTE FOR -05-.	
		826		
10C6 3C 05 191C		827 MVI XPCT,X'05'	STORE EXPECTED RESULT.	
10CA C0 87 15B0		828 B CKSIO	GO CHECK EXPECTED WITH RESULT.	
10CE 15	10CE	829 DC XL1'15'	ERROR ID.	
10CF C0 87 10E3		830 B CKRSTT	GO DO RESET IF OK.	
		831		
10D3 C0 87 17D9		832 B MAPS	POINT TO MAP CHART.	
10D7 9031	10D8	833 DC XL2'9031'	-PAGE 903, ENTRY 1.	
10D9 C0 87 0222		834 B HALT	ERROR HALT -15-.	
10DD 4015	10D8	835 DC XL2'4015'		
10DF C0 87 0216		836 B LINK	RETURN TO DCP.	
		837		
10E3 F3 40 08		838 CKRSTT SIO X'08',X'40'	DO WRITE CALL RESET.	
10E6 30 45 18FE		839 SNS TEMP,X'45'	SENSE DIAG BYTE FOR -00-.	
		840		
10EA 3D 00 18FD		841 CKRST CLI TEMP-1,X'00'	DIAG BYTE RESET TO -00- ?	
10EE F2 01 0D		842 JNE ERST	JUMP IF NOT.	
10F1 3D 15 OA03		843 CLI RTN#,X'15'	CHECKING RESET FROM RTN15?	
10F5 C0 01 0216		844 BNE LINK	RETURN TO DCP IF NOT.	
		845		
10F9 C0 87 022A		846 B LOAD	BRANCH TO DCP TO TERMINATE SECTION.	
10FD 00	10FD	847 DC XL1'00'		
		848		
		849 * 3741 RESET ERROR MESSAGE *		
		850		
10FE C0 87 021A		851 ERST B PRINT	PRINT 3741 NOT RESETTING MESSAGE.	
1102 C2	1102	852 DC XL1'C2'		
1103 1B	1103	853 DC IL1'27'		
1104 1D28	1105	854 DC AL2(NTRST)		
1106 4015	1107	855 DC XL2'4016'		
1108 C0 87 17D9		856 B MAPS	POINT TO MAP CHART.	
110C 8992	110D	857 DC XL2'8992'	-PAGE 899, ENTRY 2.	
110E C0 87 0222		858 B HALT	ERROR HALT -16-.	
1112 4016	1113	859 DC XL2'4016'		
1114 C0 87 0216		860 B LINK	RETURN TO DCP.	

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ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT

```

862 *****
863 * RTN13 *
864 *****
865 *
866 * ROUTINE 13 ISSUE A CONTROL 1 SIO.
867 *
868 *****
1118 13 1118 869 RTN13 DC XL1'13' ROUTINE NUMBER
1119 00 1119 870 DC XL1'00' NO MANUAL INTERVENTION REQUIRED
111A 1154 111B 871 DC AL2(RTN14) ROUTINE 14 ADDRESS
872
111C C0 87 1576 873 B SIOHD PRINT TEST HEADING.
1120 B3 1120 874 DC XL1'B3' MESSAGE ID.
1121 C4D640C3D6D5E3D9 113D 875 DC CL29'DO CONTROL 1 START I/O.'
1129 D6D340F140E2E3C1 875
1131 D9E340C961D64E40 875
1139 4040404040 875
113E C1 42 17BF 876 TIO DROPD,X'42' MAKE SURE 3741 IS NOT BUSY.
877
1142 C0 87 175D 878 B QUES TEST FOR SSW 10.
1146 F0 3C 3C 879 HPL X'3C',X'3C' HALT -FF- IF ON.
880
1149 31 41 18D1 881 LIO H0080,X'41' SET TO DIAGNOSTIC MODE.
114D F3 43 FF 882 SIO X'FF',X'43' ISSUE CONTROL 1 SIO.
883
1150 C0 87 0216 884 B LINK RETURN TO DCP.
885
886
887 *****
888 * RTN14 *
889 *****
890 *
891 * ROUTINE 14 ISSUE CONTROL 2 SIO.
892 *
893 *****
1154 14 1154 894 RTN14 DC XL1'14' ROUTINE NUMBER
1155 00 1155 895 DC XL1'00' NO MANUAL INTERVENTION REQUIRED
1156 1190 1157 896 DC AL2(RTN15) ROUTINE 15 ADDRESS
897
1158 C0 87 1576 898 B SIOHD PRINT TEST HEADING.
115C B4 115C 899 DC XL1'B4' MESSAGE ID.
115D C4D640C3D6D5E3D9 1179 900 DC CL29'DO CONTROL 2 START I/O.'
1165 D6D340F240E2E3C1 900
116D D9E340C961D64B40 900
1175 4040404040 900
117A C0 87 175D 901 B QUES TEST FOR SSW 10.
117E F0 3C 3C 902 HPL X'3C',X'3C' HALT -FF- IF ON.
903
1181 31 41 18CE 904 LIO H0000,X'41' REMOVE FROM DIAGNOSTIC MODE.
1185 C1 42 17BF 905 TIO DROPD,X'42' MAKE SURE 3741 IS NOT BUSY.
1189 F3 44 FF 906 SIO X'FF',X'44' ISSUE CONTROL 2 SIO.
907
118C C0 87 0216 908 B LINK RETURN TO DCP.
909
910
911 *****
912 * RTN15 *
913 *****
914 *
915 * ROUTINE 15 ISSUE A SIO TO SET/RESET THE NO-OP LATCH.
916 *
917 *****
1190 15 1190 918 RTN15 DC XL1'15' ROUTINE NUMBER
1191 00 1191 919 DC XL1'00' NO INTERVENTION REQUIRED
1192 1223 1193 920 DC AL2(RTN16) ROUTINE 16 ADDRESS
921
1194 C0 87 1576 922 B SIOHD PRINT TEST HEADING.
1198 B5 1198 923 DC XL1'B5' MESSAGE ID.

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4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERA LOC OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	
1199 E2C5E340C1D5C440	11B5	924	DC	CL29'SET AND RESET NO-OP LATCH.'
11A1 D9C5E2C5E340D5D6		924		
11A9 60D6D740D3C1E3C3		924		
11B1 C84B404040		924		
11B6 C1 42 17BF		925	TIO	DROPD,X'42'
		926		MAKE SURE 3741 IS NOT BUSY.
11BA C0 87 175D		927	B	QUES
11BE F0 3C 3C		928	HPL	X'3C',X'3C'
		929		TEST FOR SSW 10. HALT -FF- IF ON.
11C1 31 41 18CE		930	LIO	H0000,X'41'
11C5 33 41 00		931	SIO	X'00',X'41'
11C8 30 42 0AEB		932	SNS	LCR,X'42'
11CC 38 04 0AEA		933	TBN	LCR-1,X'04'
11D0 F2 90 35		934	JF	E13
		935		REMOVE FROM DIAG MODE. ISSUE A READ CALL.
11D3 30 42 190D		936	SNS	WORK,X'42'
11D7 38 04 190C		937	TBN	WORK-1,X'04'
11DB F2 10 0F		938	JT	E13A
11DE C1 42 17BF		939	TIO	TIOERB,X'42'
		940		SENSE STATUS FOR -80-. NO-OP BIT RESET ?
11E2 F3 40 08		941	SIO	X'08',X'40'
11E5 30 45 18FE		942	SNS	TEMP,X'45'
11E9 C0 87 10EA		943	B	CKRST
		944		DO READ CALL RESET. SENSE DIAG BYTE FOR -00-. GO CHECK RESET RESULTS.
945 * ROUTINE 15 ERROR MESSAGES *				
11ED C0 87 021A		946		
11F1 C2	11F1	947	E13A	B PRINT
11F2 1B	11F2	948	DC	XL1'C2'
11F3 1D7C	11F4	949	DC	IL1'27'
11F5 4018	11F6	950	DC	AL2(NORES)
11F7 C0 87 17D9		951	DC	XL2'4018'
11FB 9052	11FC	952	B	MAPS
11FD C0 87 0222		953	DC	XL2'9052'
1201 4018	1202	954	B	HALT
1203 C0 87 022A		955	DC	XL2'4018'
1207 00	1207	956	B	LOAD
		957	DC	XL1'00'
		958		GO TERMINATE SECTION.
1208 C0 87 021A		959	E13	B PRINT
120C C2	120C	960	DC	XL1'C2'
120D 19	120D	961	DC	IL1'25'
120E 1D61	120F	962	DC	AL2(NOSEE)
1210 4017	1211	963	DC	XL2'4017'
1212 C0 87 17D9		964	B	MAPS
1216 9051	1217	965	DC	XL2'9051'
1218 C0 87 0222		966	B	HALT
121C 4017	121D	967	DC	XL2'4017'
121E C0 87 022A		968	B	LOAD
1222 00	1222	969	DC	XL1'00'
		970		PRINT LATCH SET CHECK.
		971		
		972	*****	
		973	* RTN16 *	
		974	*****	*****
		975	*	*
		976	*	ROUTINE 16 TEST ALL INVALID N CODE COMMANDS.
		977	*	(DIAL IN ONLY)
		978	*****	*****
1223 16	1223	979	RTN16	DC XL1'16'
1224 80	1224	980	DC	XL1'80'
1225 FFFF	1226	981	DC	XL2'FFFF'
		982		ROUTINE NUMBER
1227 0C 03 190D 0003		983	MVC	WORK(4),3
122D 0C 03 0003 18F6		984	MVC	3(4),BRNCH
		985		MANUAL INTERVENTION REQUIRED
1233 C0 87 021A		986	B	LAST ROUTINE
1237 42	1237	987	DC	PRINT
1238 33	1238	988	DC	XL1'42'
		985		SAVE BOTTOM CORE OF DCP.
		986		STORE SPECIAL 'BRANCH BACK' CMND.
		987		
		988		PRINT TEST HEADING.

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR LOC OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	
1239 1DDD	123A	989	DC AL2 (INVAL)	
123B 40B6	123C	990	DC XL2'40B6'	
123D C0 87 021A		991	REPIT B PRINT	PRINT REST OF INSTRUCTIONS.
1241 02	1241	992	DC XL1'02'	
1242 24	1242	993	DC IL1'36'	
1243 1E01	1244	994	DC AL2 (INVL)	
1245 C0 87 021A		995	B PRINT	
1249 06	1249	996	DC XL1'06'	
124A 37	124A	997	DC IL1'55'	
124B 1E38	124C	998	DC AL2 (IVL)	
		999		
124D C0 87 0222		1000	B HALT	
1251 40EE	1252	1001	DC XL2'40EE'	OPERATOR HALT -EE-.
		1002		
1253 C0 87 123D		1003	B REPIT	REPEAT IF NO SYSTEM RESET.
		1004		
		1005 *	INVALID SENSE I/O CODES.	
1257 0E 01 0003 18DA		1006	RTRN ALC 3(2),N019	INCR RETURN ADDRESS.
125D 30 40 18FE		1007	SNS TEMP,X'40'	N = 0.
1261 C0 87 137B		1008	B ER14	BRANCH IF CMND ACCEPTED.
1255 E2D5E240F0	1269	1009	DC CL5'SNS 0'	
		1010		
126A 0E 01 0003 18DA		1011	ALC 3(2),N019	INCR RETURN ADDRESS.
1270 30 46 1'FE		1012	SNS TEMP,X'46'	N = 6.
1274 C0 87 137B		1013	B ER14	BRANCH IF CMND ACCEPTED.
1278 E2D5E240F6	127C	1014	DC CL5'SNS 6'	
		1015		
127D 0E 01 0003 18DA		1016	ALC 3(2),N019	INCR RETURN ADDRESS.
1283 30 47 18FE		1017	SNS TEMP,X'47'	N = 7.
1287 C0 87 137B		1018	B ER14	BRANCH IF CMND ACCEPTED.
128B E2D5E240F7	128F	1019	DC CL5'SNS 7'	
		1020		
		1021 *	INVALID LOAD I/O CODES.	
1290 0E 01 0003 18DA		1022	ALC 3(2),N019	INCR RETURN ADDRESS.
1296 31 40 18CE		1023	LIO H0000,X'40'	N = 0.
129A C0 87 137B		1024	B ER14	BRANCH IF CMND ACCEPTED.
129E D3C9D640F0	12A2	1025	DC CL5'LIO 0'	
		1026		
12A3 0E 01 0003 18DA		1027	ALC 3(2),N019	INCR RETURN ADDRESS.
12A9 31 43 18CE		1028	LIO H0000,X'43'	N = 3.
12AD C0 87 137B		1029	B ER14	BRANCH IF CMND ACCEPTED.
12B1 D3C9D640F3	12B5	1030	DC CL5'LIO 3'	
		1031		
12B6 0E 01 0003 18DA		1032	ALC 3(2),N019	INCR RETURN ADDRESS.
12BC 31 46 18CE		1033	LIO H0000,X'46'	N = 6.
12C0 C0 87 137B		1034	B ER14	BRANCH IF CMND ACCEPTED.
12C4 D3C9D640F6	12C8	1035	DC CL5'LIO 6'	
		1036		
12C9 0E 01 0003 18DA		1037	ALC 3(2),N019	INCR RETURN ADDRESS.
12CF 31 47 18CE		1038	LIO H0000,X'47'	N = 7.
12D3 C0 87 137B		1039	B ER14	BRANCH IF CMND ACCEPTED.
12D7 D3C9D640F7	12DB	1040	DC CL5'LIO 7'	
		1041		
		1042 *	INVALID TIO N CODES.	
12DC 0E 01 0003 18DA		1043	ALC 3(2),N019	INCR RETURN ADDRESS.
12B2 C1 41 12E6		1044	TIO *+4,X'41'	N = 1.
12F6 C0 87 137B		1045	B ER14	BRANCH IF CMND ACCEPTED.
12EA E3C9D640F1	12EE	1046	DC CL5'TIO 1'	
		1047		
12EF 0E 01 0003 18DA		1048	ALC 3(2),N019	INCR RETURN ADDRESS.
12F5 C1 44 12F9		1049	TIO *+4,X'44'	N = 4.
12F9 C0 87 137B		1050	B ER14	BRANCH IF CMND ACCEPTED.
12FD E3C9D640F4	1301	1051	DC CL5'TIO 4'	
		1052		
1302 0E 01 0003 18DA		1053	ALC 3(2),N019	INCR RETURN ADDRESS.
1308 C1 45 130C		1054	TIO *+4,X'45'	N = 5.
130C C0 87 137B		1055	B ER14	BRANCH IF CMND ACCEPTED.
1310 E3C9D640F5		1314	DC CL5'TIO 5'	
		1056		

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ERR LOC OBJECT CODE	ADDE STMNT SOURCE STATEMENT		
1315 0E 01 0003 18DA	1057		
131B C1 46 131F	1059	ALC 3(2),N019	INCR RETURN ADDRESS.
131F C0 87 137B	1060	TIO *+4,X'46'	N = 6.
1323 E3C9D640F6	1327 1061	B BR14	BRANCH IF CMND ACCEPTED.
	1062	DC CLS'TIO 6'	
1328 0E 01 0003 18DA	1063	ALC 3(2),N019	INCR RETURN ADDRESS.
132E C1 47 1332	1064	TIO *+4,X'47'	N = 7.
1332 C0 87 137B	1065	B BR14	BRANCH IF CMND ACCEPTED.
1336 E3C9D640F7	133A 1066	DC CLS'TIO 7'	
	1067		
	1068 *	INVALID SIO N CODES.	
133B 0E 01 0003 18D8	1069	ALC 3(2),N018	INCR RETURN ADDRESS.
1341 F3 45 00	1070	SIO X'00',X'45'	N = 5.
1344 C0 87 137B	1071	B BR14	BRANCH IF CMND ACCEPTED.
1348 E2C9D640F5	134C 1072	DC CLS'SIO 5'	
	1073		
134D 0E 01 0003 18D8	1074	ALC 3(2),N018	INCR RETURN ADDRESS.
1353 F3 46 00	1075	SIO X'00',X'46'	N = 6.
1356 C0 87 137B	1076	B BR14	BRANCH IF CMND ACCEPTED.
135A E2C9D640F6	135E 1077	DC CLS'SIO 6'	
	1078		
135P 0E 01 0003 18D8	1079	ALC 3(2),N018	INCR RETURN ADDRESS.
1365 F3 47 00	1080	SIO X'00',X'47'	N = 7.
1368 C0 87 137B	1081	B BR14	BRANCH IF CMND ACCEPTED.
136C E2C9D640F7	1370 1082	DC CLS'SIO 7'	
	1083		
1371 0C 03 0003 190D	1084 PUTBAK MVC	3(4),WORK	RESTORE BOTTOM CORE OF DCP.
1377 C0 87 0216	1085	B LIFFK	RETURN TO DCP.
	1086		
	1087 *	ROUTINE 16 ERROR MESSAGE *	
	1088		
137B 36 08 18D6	1089 ER14 A	N004,APP	
137F 34 08 1388	1090 ST	*+9,APP	
1383 0C 04 1E5C 0000	1091 MVC	FLWNG(5),**-	STORE PAILING CMND ID.
1389 0C 23 1F12 1E5C	1092 MVC	PBT-55(36),FLWNG	SET UP ERROR MESSAGE.
138F 0C 00 1CE5 1E5C	1093 MVC	THD-1(1),FLWNG	
1395 0C 08 1F1A 1CE6	1094 MVC	PBT-47(9),THD	
139B C0 87 021A	1095 B	PRINT	PRINT ERROR MESSAGE.
139F C2	139F 1096 DC	X11'C2'	
13A0 5B	13A0 1097 DC	I11'91'	
13A1 1F49	13A2 1098 DC	AL2(PPT)	
13A3 4019	13A4 1099 DC	AL2'4019'	
13A5 0C 5A 1F49 1F4A	1100 MVC	PBT(91),PBT+1	CLEAR PRINT PFIELD.
13AB C0 87 17D9	1101 B	MAPS	POINT TO MAP CHART.
13AF 9053	13B0 1102 DC	XL2'9053'	-PAGE 905, ENTRY 3.
13B1 C0 87 0222	1103 B	HALT	ERROR HALT -19-.
13B5 4019	13B6 1104 DC	XL2'4019'	
13B7 C0 87 1371	1105 B	PUTBAK	GO RETURN TO DCP.

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR LOC OBJECT CODE ADDR Stmt SOURCE STATEMENT

```

1107 ****
1108 * SNSERR *
1109 *****
1110 *
1111 *
1112 *
1113 * B SNSERR
1114 * DC 2,X'EXPECTED PATTERN'
1115 * DC 2,X'ACTUAL PATTERN'
1116 * DC 1,X'ERROR ID'
1117 *
1118 ****
13BB 36 08 18D0 1119 SNSERR A N001,ARR
13BF 34 08 13C8 1120 ST **9,ARR
13C3 0C 01 163C 0000 1121 MVC XPT(2),*-*
13C9 36 08 18D2 1122 A N002,ARR
13CD 34 08 13D6 1123 ST **9,ARR
13D1 0C 01 163E 0000 1124 MVC ACT(2),*-*
13D7 36 08 18D0 1125 A N001,ARR
13DB 34 08 13F4 1126 ST **9,ARR
13DF 0C 00 13F6 0000 1127 MVC SNRID(1),*-*
13B5 26 08 18D0 1128 A N001,ARR
13E9 34 08 1487 1129 ST ERSN+3,ARR
1130
13BD C0 87 021A 1131 B PRINT
13F1 C2 13F1 1132 DC XL1'C2'
13F2 0C 13F2 1133 DC IL1'12'
13F3 1B72 13F4 1134 DC AL2(SNCKMS)
13F5 4000 13F6 1135 SNRID DC XL2'4000'
1136
13F7 3D 03 0A03 1137 CLI RTN#,X'03'
13FB F2 01 0C 1138 JNE **15
13FE 0C 0A 1F04 1AEE 1139 MVC PRT-69(18),STLCSR-22
1404 0C 0F 1F1B 1ABF 1140 MVC PRT-46(16),STLCSR-5
140A 3D 04 0A03 1141 CLI RTN#,X'04'
140E F2 01 05 1142 JNE **9
1411 0C 11 1F12 1AD6 1143 MVC PRT-55(18),IOTRL
1417 3D 05 0A03 1144 CLI RTN#,X'05'
141B F2 01 06 1145 JNE **9
141E 0C 0E 1F06,1BCA 1146 MVC PRT-67(15),DIAG
1424 C0 87 18A7 1147 B EPRNT2
1148
1428 C2 02 1F06 1149 LA PRT-67,XR2
142C 3D 05 0A03 1150 CLI RTN#,X'05'
1430 F2 01 07 1151 JNE NORM
1433 C2 01 19D0 1152 LA WORK,XR1
1437 F2 87 04 1153 J **7
143A C2 01 1F1A 1154 NCNM LA PRT-47,XR1
1155
143E C0 09 1F03 1D09 1156 MVC PRT-70(10),EB2
1444 3D 05 0A03 1157 CLI RTN#,X'05'
1448 F2 81 06 1158 JE **9
144B 0C 09 1F17 1CPF 1159 MVC PRT-50(10),EB1
1451 C0 87 169C 1160 B EPRNT1
1161
1455 0C 0E 1FC0E 1CP5 1162 MVC PRT-67(15),BITS
145B 3D 05 0A03 1163 CLI RTN#,X'05'
145F F2 81 06 1164 JE **9
1462 0C 0E 1F1A 1CP5 1165 MVC PRT-47(15),BITS
1468 C0 87 18A7 1166 B EPRNT2
1167
146C C0 87 16E1 1168 B BITSNP
1470 163E 1471 1169 DC AL2(ACT)
1472 C0 87 189C 1170 B EPRNT1
1476 C0 87 163F 1171 B CMPARE
147A 0C 06 1EP5 1D10 1172 MVC PRT-84(7),ERORS
1480 C0 87 18A7 1173 B EPRNT2
1484 C0 87 0000 1174 ERSN B **-

```

FROM RTN03 ERROR ?
JUMP IF NOT.
LOAD RTN03 ERROR HEADING.

FROM RTN04 ERROR ?
JUMP IF NOT.
LOAD RTN04 ERROR HEADING.

FROM RTN05 ERROR ?
JUMP IF NOT.
LOAD RTN05 ERROR HEADING.

PRINT HEADING.

INITIALIZE OUTPUT ADDRESSES.
FROM ROUTINE 05 ?
JUMP IF NOT SO.
SET UP DUMMY EB1 FIELD.

SET UP NORMAL EB1 FIELD.

ARRANGE TABLE READINGS.
FROM ROUTINE 05 ?
SKIP IF SO.

PRINT EB BYTE LABELS.

ARRANGE BIT LABELS.
FROM ROUTINE 05 ?
SKIP IF SO.

PRINT BIT LABELS.

CALCULATE STATUS OF ALL ACTUAL BITS.

GO PRINT ACTUAL STATUS.
FIGURE ERROR BITS.
MOVE IN ERROR LABEL.
PRINT ERROR BITS.
RETURN TO ROUTINE.

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT

	1176 *****	*****	*****	*****
	1177 * LIOSNS *			*
	1178 *****		THE EXPECTED AND ACTUAL SNS PATTERNS	*
	1179 *		ARE COMPARED FROM ROUTINES 07-0E.	*
	1180 *			*
	1181 *****	*****	*****	*****
1488 36 08 18D0	1182 LIOSNS A	N001,ARR		
148C 34 08 1495	1183 ST	*+9,ARR		
1490 0C 01 191B 0000	1184 MVC	NID(2),**	SAVE THE N CODE, ERRCR ID.	
1496 36 08 18D0	1185 A	N001,ARR		
149A 34 08 14AA	1186 ST	CKKLS+3,ARR	SAVE RETURN ADDRESS.	
	1187			
149B 0D 01 1917 1919	1188 CLC	LSCK(2),PATRN	EXPECTED AND ACTUAL EQUAL ?	
14A4 F2 01 04	1189 JNE	*+7	JUMP IF NOT.	
14A7 C0 87 0000	1190 CKKLS B	**-	RETURN TO ROUTINE.	
	1191			
14AB 0C 00 14BA 191A	1192 MVC	LSID(1),NID-1	STORE CURRENT ERROR ID.	
14B1 C0 87 021A	1193 B	PRINT	PRINT ERROR HEADING.	
14B5 C2	14B5 1194 DC	XL1'C2'		
14B6 16	14B6 1195 DC	IL1'22'		
14B7 1BE0	14B8 1196 DC	AL2(LSCK)		
14B9 4000	14BA 1197 LSID	DC	XL2'4000'	
14BB 3D F1 191B	1198 CLI	NID,X'F1'	N CODE 1 CHECK ?	
14BF P2 01 06	1199 JNE	*+9	JUMP IF NOT.	
14C2 0C 10 1P12 198C	1200 MVC	PRT-55(17),FNCT	MOVE IN N 1 ID.	
14C8 3D F2 191B	1201 CLI	NID,X'F2'	N CODE 2 CHECK ?	
14CC F2 01 06	1202 JNE	*+9	JUMP IF NOT.	
14CF 0C 0F 1P07 1ABP	1203 MVC	PRT-66(16),STLCR-5	MOVE IN N 2 ID.	
14D5 3D F4 191B	1204 CLI	NID,X'F4'	N CODE 4 ID ?	
14D9 F2 01 06	1205 JNE	*+9	JUMP IF NOT.	
14DC 0C 14 1P13 1AEB	1206 MVC	PRT-54(21),DADR	MOVE IN N 4 ID.	
14E2 3D F5 191B	1207 CLI	NID,X'F5'	N CODE 5 CHECK ?	
14E6 F2 01 06	1208 JNE	*+9	JUMP IF NOT.	
14E9 0C 10 1P07 1B0C	1209 MVC	PRT-66(17),DIGTR-5	MOVE IN N 5 ID.	
14EP C0 87 18A7	1210 B	EPRNT2	PRINT HEADING.	
14F3 3D F2 191B	1211 CLI	NID,X'F2'	N CODE 2 CHECK ?	
14F7 F2 81 32	1212 JE	SPL2	JUMP IF SO.	
14FA 3D F5 191B	1213 CLI	NID,X'F5'	N CODE 5 CHECK ?	
14FE F2 81 2B	1214 JE	SPL2	JUMP IF SO.	
1501 0C 09 1P03 1D09	1215 MVC	EFT-70(10),EB2	SET UP BYTE LABELS.	
1507 0C 09 1P17 1CPF	1216 MVC	PRT-50(10),EB1		
150D C0 87 189C	1217 B	EPRNT1	PRINT BYTE LABELS.	
1511 0C 0E 1P06 1CP5	1218 MVC	PRT-67(15),BITS	SET UP BIT LABELS.	
1517 0C 0E 1P1A 1CP5	1219 MVC	PRT-47(15),BITS		
151D C0 87 18A7	1220 B	EPRNT2	PRINT BIT LABELS.	
1521 C2 02 1P06	1221 LA	PRT-67,XR2	LOAD OUTPUT ADDRESS.	
1525 C2 01 1P1A	1222 LA	PRT-47,XR1		
1529 F2 87 1C	1223 J	CALC		
152C 0C 09 1P03 1CPF	1224 SPL2	MVC	PRT-70(10),EB1	PRINT EB1 HEADING.
1532 C0 87 189C	1225 B	EPRNT1		
1536 0C 0E 1P06 1CP5	1226 MVC	PRT-67(15),BITS	PRINT BIT HEADINGS.	
153C C0 87 18A7	1227 B	EPRNT2	STORE OUTPUT ADDRESSES.	
1540 C2 01 1P06	1228 LA	PRT-67,XR1		
1544 C2 02 190D	1229 LA	WORK,XR2		
1548 C0 87 16E1	1230 CALC	B	BITSNF	CALCULATE BIT STATUS OF BYTES.
154C 1917	154D 1231 DC	AL2(LSCK)		
154E C0 87 189C	1232 B	EPRNT1	PRINT BIT STATUS.	
1552 0C 01 163C 1919	1233 MVC	XPT(2),PATRN	STORE EXPECTED PATTERN.	
1558 0C 01 163E 1917	1234 MVC	ACT(2),LSCK	STORE ACTUAL PATTERN.	
155E C0 87 163F	1235 B	CMPARE	CALCULATE ERROR BITS.	
1562 0C 06 1EF5 1D10	1236 MVC	PRT-84(7),ERORS	MOVE ERROR LABEL IN.	
1568 C0 87 18A7	1237 B	EPRNT2	PRINT ERROR BITS.	
	1238			
156C 0E 01 14AA 18D6	1239 ADDIT ALC	CKKLS+3(2),N004	INCR RETURN ADDRESS TO BRANCH	
1572 C0 87 14A7	1240 B	CKKLS	TO ERROR HALT IN ROUTINE.	

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4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

EPR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT

		1242 ****		
		1243 * SIOHD *		*
		1244 *****	TEST HEADINGS AND ERROR MESSAGES	*
		1245 *	ARE PRINTED FOR ROUTINES OD - 13.	*
		1246 *		*
		1247 *****		*
1576 34 08 157F	1248	SIOHD ST	*+9,ARR	
157A 0C 00 15A5 0000	1249	MVC	SID(1),*-*	STORE MESSAGE HEADING ID.
1580 36 08 18DC	1250	A	N029,ARR	
1584 34 08 158D	1251	ST	*+9,ARR	
1588 0C 1C 1P1B 0000	1252	MVC	PRT-46(29),*-*	STORE ROUTINE HEADING.
158E 36 08 18D0	1253	A	N001,ARR	
1592 34 08 15AF	1254	ST	SHDD+3,ARR	STORE RETURN ADDRESS.
	1255			
1596 0C 0F 1EPE 1C31	1256	MVC	PRT-75(16),TSIO	BUILD UP REST OF HEADING.
159C C0 87 021A	1257	B	PRINT	PRINT ROUTINE TEST HEADING.
15A0 45	15A0 1258	DC	XL1'45'	
15A1 5B	15A1 1259	DC	IL1'91'	
15A2 1P49	15A3 1260	DC	AL2(PRT)	
15A4 4000	15A5 1261	SID	DC XL2'4000'	
15A6 0C 5A 1P49 1P4A	1262	MVC	PRT(91),PRT+1	CLEAR PRINT AREA.
15AC C0 87 0000	1263	SHDD	B ***	RETURN TO ROUTINE.
	1264			
	1265 * ROUTINE OD-13 ERROR MESSAGE *			
	1266			
15B0 34 08 15B9	1267	CKSIO ST	*+9,ARR	
15B4 0C 00 15D4 0000	1268	MVC	SEBID(1),*-*	STORE ERROR ID.
15B8 36 08 18D0	1269	A	N001,ARR	
15BE 34 08 163A	1270	ST	CKS+3,ARR	STORE RETURN ADDRESS.
	1271			
15C2 0D 00 191C 18FB	1272	CLC	XPCT(1),DTR-1	EXPECTED AND ACTUAL EQUAL ?
15C8 P2 81 6C	1273	JE	CKS	JUMP IF SO.
	1274			
15CB C0 87 021A	1275	B	PRINT	PRINT ERROR HEADING.
15CF C2	15CF 1276	DC	XL1'C2'	
15D0 16	15D0 1277	DC	IL1'22'	
15D1 1C21	15D2 1278	DC	AL2(SIOCK)	
15D3 4005	15D4 1279	SERID	DC XL2'4005'	
	1280			
15D5 0C 5A 1P49 1P4A	1281	MVC	PRT(91),PRT+1	
15DB 0C 0E 1F06 1BCA	1282	MVC	PRT-67(15),DIAG	MOVE IN DIAG BYTE LABLE.
15E1 C0 87 18A7	1283	B	EPRNT2	PRINT LABLE.
15E5 0C 0S 1F03 1D09	1284	MVC	PRT-70(10),EB2	BRING IN EB2 LABLE.
15EB C0 87 189C	1285	B	EPRNT1	PRINT LAELE.
15FF 0C 0E 1F06 1CP5	1286	MVC	PRT-67(15),BITS	MOVE IN BIT HEADINGS.
15F5 C0 87 18A7	1287	B	EPRNT2	PRINT HEADINGS.
	1288			
15F9 C2 02 1F06	1289	LA	PRT-67,XB2	LOAD OUTPUT ADDRESSES.
15FD C2 01 1P1A	1290	LA	PRT-47,XB1	
1501 C0 87 16E1	1291	B	BITSNP	CALCULATE STATUS OF ALL BITS.
1605 18FC	1606 1292	DC	AL2(DTR)	
1607 0C 0E 1P1A 1P1B	1293	MVC	PRT-47(15),PRT-46	CLEAR EB1 STATUS.
160D C0 87 189C	1294	B	EPRNT1	PRINT BIT STATUS OF DIAG BYTE.
	1295			
1611 0C 00 163B 191C	1296	MVC	XPT-1(1),XPCT	
1617 0C 01 163B 18FC	1297	MVC	ACT(2),DTR	STORE ACTUAL PATTERN.
161D C0 87 163F	1298	B	CMPARE	CALCULATE ERROR BITS.
1621 0C 06 1EPE 1D10	1299	MVC	PRT-84(7),ERRORS	MOVE IN ERROR LABLE.
1627 0C 0E 1P1A 1P1B	1300	MVC	PRT-47(15),PRT-46	
162D C0 87 18A7	1301	B	EPRNT2	PRINT ERROR BITS.
	1302			
1631 0E 01 163A 18D6	1303	ALC	CKS+3(2),N004	INCR RETURN ADDRESS TO RETURN
1637 C0 87 0000	1304	CKS	***	TO ERROR HALT.

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT

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1306 ****
1307 * CMPARE *
1308 ****
1309 * EXPECTED EB1 & EB2 BYTES IN 'XPT' ARE
1310 * COMPARED AGAINST ACTUAL EB1 & EB2 BYTES
1311 * IN 'ACT'. ERROR BITS ARE IDENTIFIED BY
1312 * A -- IN THE OUTPUT AREA.
1313 ****

163B 0000 163C 1314 XPT DC XL2'0000' EXPECTED EB1 & EB2 BYTES.
163D 0000 163E 1315 ACT DC XL2'0000' ACTUAL EB1 & EB2 BYTES.

163P 34 08 169A 1316
1643 34 02 16D2 1317 CMPARE ST CMPR+3,ARR
1647 34 01 16DA 1318 ST TAERR+3,XR2
164B 3C 01 1664 1319 ST TBERR+3,XR1
164F 3C 01 166B 1320 MVI TA3+1,X'01'
1653 3C 01 1675 1321 MVI TA2+1,X'01'
1657 3C 01 167C 1322 MVI TA1+1,X'01'
165B 3C 01 1683 1323 MVI TB3+1,X'01'
165P 3C 01 168D 1324 MVI TB2+1,X'01'
1325 MVI TB1+1,X'01'
1326
1653 38 01 163B 1327 TA3 TBN XPT-1,X'01'
1667 F2 10 0A 1328 JT TA1
166A 38 01 163D 1329 TA2 TBN ACT-1,X'01'
166E F2 10 5E 1330 JT TAERR
1671 F2 87 07 1331 J TB3
1332
1574 38 01 163D 1333 TA1 TBN ACT-1,X'01'
1573 F2 90 54 1334 JP TAERR
1335
167B 38 01 163C 1336 TB3 TBN XPT,X'01'
167F F2 10 0A 1337 JT TB1
1632 38 01 163E 1338 TB2 TBN ACT,X'01'
1686 F2 10 4E 1339 JT TBERR
1639 F2 87 07 1340 J TC
1341
168C 38 01 163E 1342 TB1 TBN ACT,X'01'
1630 F2 90 44 1343 JP TBERR
1344
1633 38 80 168D 1345 TC TBN TB1+1,X'80'
1697 C0 10 0000 1346 CMPR BT ***
153B 0E 00 1675 1675 1347 ALC TA1+1(1),TA1+1
16A1 0E 00 166B 166B 1348 ALC TA2+1(1),TA2+1
16A7 0E 00 1664 1664 1349 ALC TA3+1(1),TA3+1
15AD 0E 00 168D 168D 1350 ALC TB1+1(1),TB1+1
16B3 0E 00 1683 1683 1351 ALC TB2+1(1),TB2+1
16B9 0E 00 167C 167C 1352 ALC TB3+1(1),TB3+1
16BF 0F 01 16D2 18D2 1353 SLC TAERR+3(2),N002
16C5 0F 01 16DA 18D2 1354 SLC TBERR+3(2),N002
16CB C0 87 1663 1355 B TA3
1356
16CF 3C 5C 0000 1357 TAERR MVI ***,X'5C'
16D3 C0 87 167B 1358 B TB3
16D7 3C 5C 0000 1359 TBERR MVI ***,X'5C'
16DB C0 87 1693 1360 B TC
1361
1362 ****
1363 * BITSNP *
1364 **** THE EB1 & EB2 BYTES ARE CONVERTED
1365 * TO A PRINTABLE BINARY FORM.
1366 *
1367 ****

16DF 00 16DF 1368 EB2T DC XL1'00' TEMPORARY STORAGE FOR EB2 & EB1
16E0 00 16E0 1369 EB1T DC XL1'00' BYTES.

16E1 36 08 18D0 1370
16E5 34 08 16EE 1371 BITSNP A N001,ARR
16E9 DC 01 16F4 0000 1372 ST **2,ARR
1373 MVC **11(2),**-

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4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR LOC	OBJC CODE	ADDR	STMT	SOURCE STATEMENT
		1374	MVC	EB1T(2),*-"
16EF	0C 01 16E0 0000	1375	A	N001,ARR
16F5	36 08 18D0	1376	ST	BTNF+3,ARR
16F9	34 08 1740	1377	MVI	TNF+1,X'01'
16FD	3C 01 170E	1378	MVI	TNFF+1,X'01'
1701	3C 01 1724	1379	ST	NP+3,XR2
1705	34 02 1722	1380	ST	NP+3,XR1
1739	34 01 1738	1381		
173D	38 00 16D8	1382	TNF	TBN EB2T,X'00'
1711	P2 10 07	1383	JT	ITSON
1714	3C P0 1720	1384	MVI	NP+1,X'P0'
1718	P2 87 04	1385	J	NP
171B	3C P1 1720	1386	ITSON	MVI NP+1,X'P1'
171F	3C 00 0000	1387	NF	MVI **-,X'00'
		1388		
1723	38 00 16E0	1389	TNFF	TBN EB1T,X'00'
1727	P2 10 07	1390	JT	ITON
172A	3C P0 1736	1391	MVI	NFF+1,X'P0'
172E	P2 87 04	1392	J	NFF
1731	3C F1 1736	1393	ITON	MVI NFF+1,X'F1'
1735	3C 00 0000	1394	NFF	MVI **-,X'00'
		1395		
1739	38 80 170E	1396	TBN	TNF+1,X'80'
173D	C0 10 0000	1397	BTNF	BT **-
1741	0E 00 170E 170E	1398	ALC	TNF+1(1),TNF+1
1747	0E 00 1724 1724	1399	ALC	TNFF+1(1),TNFF+1
178D	0F 01 1722 18D2	1400	SLC	NP+3(2),N002
1753	0F 01 1738 18D2	1401	SLC	NP+3(2),N002
1759	C0 87 170D	1402	B	TNF
		1403		
1404	*****			
1405	* QUES *			*
1406	*****		SUBROUTINE DETERMINES IF SSW 10 IS ON.	*
1407	*			*
1408	*****			*
175D	34 08 1771	1409	QUES	ST QS+3,ARR
1761	38 80 020A	1410	TBN	SBYTE2,SSW10
1765	P2 10 0A	1411	JT	QST
1768	0E 01 1771 18D4	1412	ALC	QS+3(2),N003
176E	C0 87 0000	1413	QS	B ***
		1414		
1772	3D C2 0200	1415	QST	CLI X'0200',X'C2'
1776	C0 01 176E	1416	BNE	QS
177A	35 01 1771	1417	L	QS+3,XR1
177E	4C 01 02 18F0	1418	MVC	2(2,XR1),FFFF8
1783	C0 87 176E	1419	B	QS
		1420		
1421	*****			*
1422	* TIOERX *			*
1423	*****		SUBROUTINE PRINTS TIO ERROR MESSAGES.	*
1424	*			*
1425	*****			*
1737	C0 87 021A	1426	TIOERD	B PRINT
		178B	1427	DC XL1'C2'
178C	0E	178C	1428	DC IL1'14'
178D	1CAE	178E	1429	DC AL2(RDY)
178F	4001	1790	1430	DC XL2'4001'
1791	0C 28 1F17 1E9B	1431	MVC	PRT-50(41),CNCTR
1797	C0 87 189C	1432	B	EPRNT1
179B	0C 24 1F1C 1EC0	1433	MVC	PRT-45(37),RMOV
17A1	C0 87 18A7	1434	B	EPRNT2
17A5	0C 18 1F07 1ED9	1435	MVC	PRT-66(25),IFOFF
17AB	C0 87 189C	1436	B	EPRNT1
		1437		
17AF	C0 87 17D9	1438	B	MAPS
17B3	8702	17B4	1439	DC XL2'8702'
17B5	C0 87 0222	1440	B	HALT
17B9	4001	17B4	1441	DC XL2'4001'

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT
17BB	C0 87 0A11	1442	B	BEGINN
		1443		TELL TO DO SYSTEM RESET, START.
17BF	C0 87 021A	1444	TIOERB	PRINT
17C3	C2	17C3	1445	DC XL1'C2'
17C4	0D	17C4	1446	DC IL1'13'
17C5	1CA0	17C6	1447	DC AL2(BUSSY)
17C7	4002	17C8	1448	DC XL2'4002'
17C9	C0 87 17D9	1449	B	MAPS
17CD	8721	17CB	1450	DC XL2'8721'
17CF	C0 87 0222	1451	B	HALT
17D3	4002	17D4	1452	DC XL2'4002'
17D5	C0 87 0216	1453	B	LINK
		1454		RETURN TO DCP.
		1455	*****	*****
		1456	* MAPS *	POINT TO MAP CHART.
		1457	*****	-PAGE 872, ENTRY 1.
		1458	*	ERROR HALT -02-.
		1459	*	
		1460	*	
		1461	*	THE MAP CHART REFERENCE IS PRINTED. CALL
		1462	*	SUBROUTINE BY -
		1463	*****	*****
		1464	MAPS ST TEMP,ARR	B MAPS
		1465	L TEMP,XR1	DC XL2'PAGE NUMBER/ENTRY NUMBER'
		1466	MNZ MAPSS-11,0(,XR1)	STORE THE ARR.
		1467	MNZ MAPSS-10,0(,XR1)	LOAD ARR INTO XR1.
		1468	MNZ MAPSS-9,1(,XR1)	STORE HUNDREDS DIGIT.
		1469	MNZ MAPSS-1,1(,XR1)	STORE TENS DIGIT.
		1470		STORE UNITS DIGIT.
		1471	B PRINT	STORE ENTRY NUMBER.
17D9	34 08 18FE	17F9	1472	DC XL1'86'
17DD	35 01 18FE	17FA	1473	DC IL1'34'
17E1	18 02 1C48 00	17FB	1474	DC AL2(MAPSS)
17E6	18 03 1C49 00		1475	
17EB	18 02 1C4A 01		1476	B 2(,XR1)
17F0	18 03 1C52 01		1477	RETURN TO ROUTINE.
17F5	C0 87 021A		1478	*****
17F9	86		1479	* CODE *
17FA	22		1480	*****
17FB	1C53		1481	TEST HEADINGS ARE PRINTED FOR RTN07-0E.
17FD	D0 87 02		1482	*****
1800	34 08 1809		1483	CODE ST COD+5,ARR
1804	0C 00 1C25 0000		1484	MVC THD-1(1),---
180A	36 08 18D0		1485	A N001,ARR
1807	34 08 189B		1486	ST CODD+3,ARR
1812	3D F1 1CE5		1487	
1816	C0 01 1824		1488	CLI THD-1,X'F1'
181A	0C 10 1F27 198C		1489	BNE **+14
1820	3C 4B 1F28		1490	MVC PRT-34(17),FNCT
1824	3D F2 1CE5		1491	MVI PRT-33,X'4B'
1828	C0 01 1836		1492	CLI THD-1,X'F2'
182C	0C 14 1F2B 1AC4		1493	BNE **+14
1832	3C 4B 1F2C		1494	MVC PRT-30(21),STLCR
1836	3D F3 1CE5		1495	MVI PRT-29,X'4B'
183A	C0 01 1848		1496	CLI THD-1,X'F3'
183E	0C 11 1F28 1AD6		1497	BNE **+14
1844	3C 4B 1F29		1498	MVC PRT-33(18),IOTRL
1848	3D F5 1CE5		1499	MVI PRT-32,X'4B'
184C	C0 01 185A		1500	CLI THD-1,X'F5'
1850	0C 15 1F2C 1B11		1501	BNE **+14
1856	3C 4B 1F2D		1502	MVC PRT-29(22),DIGTR
			1503	MVI PRT-28,X'4B'
			1504	
185A	C0 87 021E		1505	B UNPACK
185E	02	185E	1506	DC IL1'2'
185F	1919		1860	1507 DC AL2(PATRN)
1861	1D9E		1862	1508 DC AL2(TSPAT-6)
1863	0C 27 1F16 1DA4		1509	MVC PRT-51(40),TSPAT
				BRING REST OF HEADING.

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR LOC OBJECT CODE	ADDR	STATM	SOURCE STATEMENT	
1869 0D 01 1D9C 18F8	1510	CLC	TSPAT-8(2),C00	LCR OR DTR TEST ?
186F F2 01 12	1511	JNE	GORD	JUMP IF NOT.
1872 0C 01 1DA8 1D9E	1512	MVC	SHORT-2(2),TSPAT-6	MOVE IN SPECIAL PATTERN.
1878 0C 05 1F11 1DAA	1513	MVC	PBT-56(6),SHORT	
	1514			
187E 08 03 188D 0A03	1515	MNN	HDNGID,RTN*	MOVE IN ROUTINE ID HEADING.
1884 C0 87 021A	1516	GORD	B PRINT	PRINT HEADINGS FOR RTN 05 - OC.
1888 45	1888 1517	DC	XL1'45'	
1889 5B	1889 1518	DC	XL1'91'	
188A 1F49	188B 1519	DC	AL2(PRT)	
188C 40A0	188D 1520	HDNGID DC	XL2'40A0'	
188E 0C 5A 1F49 1F4A	1521	MVC	PRT(91),PRT+1	CLEAR PRINT AREA.
1894 C1 42 17BF	1522	TIO	DROPD,X'42'	BRANCH IF 3741 IS BUSY.
1898 C0 87 0000	1523	CODD	B ***	RETURN TO MAIN ROUTINE.
	1524			
	1525 *****			
	1526 * EPRNTX *			*
	1527 *****		DCP ERROR PRINTING SUBROUTINES.	*
	1528 *			*
	1529 *****			*
189C 34 08 18C0	1530	EPRNT1 ST	PRTT+3,ARR	STORE RETURN ADDRESS.
18A0 3C 81 18B3	1531	MVI	LINE,X'81'	SET TO SPACE 1 LINE.
18A4 F2 87 06	1532	J	PRT	GO PRINT.
18A7 34 08 18C0	1533	EPRNT2 ST	PRTT+3,ARR	STORE RETURN ADDRESS.
18AB 3C 82 18B3	1534	MVI	LINE,X'82'	SET TO SPACE 2 LINES.
	1535			
18AF C0 87 021A	1536	PRNT	B PRINT	PRINT THE DATA STORED IN -PRT-.
18B3 00	18B3 1537	LINE	DC XL1'00'	DO CORRESPONDING SPACE OPERATION.
18B4 5B	18B4 1538	DC	XL1'91'	
18B5 1F49	18B6 1539	DC	AL2(PRT)	
18B7 0C 5A 1F49 1F4A	1540	MVC	PRT(91),PRT+1	CLEAR PRINT AREA.
18BD C0 87 0000	1541	PRTT	B ***	RETURN TO ROUTINE.
	1542			
	1543 *****			*
	1544 * INT4 *			*
	1545 *****		BRANCH HERE IF INTERRUPT IS ERRONEOUSLY	*
	1546 *		CAUSED IN ROUTINE OF.	*
	1547 *			*
	1548 *****			*
18C1 00	18C1 1549	PIAG	DC XL1'00'	
18C2 3A 01 18C1	1550	INT5	SBN FLAG,X'01'	TURN ON ERROR FLAG.
18C6 F3 40 0D	1551	SIO	X'0D',X'40'	RESET THE INTERRUPT.
18C9 C0 87 18C2	1552	B	INT5	
	1553			
	1554 *****			*
	1555 * CONSTANTS *			*
	1556 *****			*
18CD 0000	18CE 1557	N000	DC IL2'0'	
18CF 0001	18D0 1558	N001	DC IL2'1'	
18D1 0002	18D2 1559	N002	DC IL2'2'	
18D3 0003	18D4 1560	N003	DC IL2'3'	
18D5 0004	18D6 1561	N004	DC IL2'4'	
18D7 0012	18D8 1562	N018	DC IL2'18'	
18D9 0013	18DA 1563	N019	DC IL2'19'	
18DB 001D	18DC 1564	N029	DC IL2'29'	
18DD 0080	18DE 1565	H0080	DC XL2'0080'	
18DF AA55	18E0 1566	HAA55	DC XL2'AA55'	
18E1 55AA	18E2 1567	H55AA	DC XL2'55AA'	
18E3 1000	18E4 1568	H1000	DC XL2'1000'	
18E5 0055	18E6 1569	H0055	DC XL2'0055'	
18E7 0F55	18E8 1570	H0F55	DC XL2'0F55'	
18E9 00AA	18EA 1571	H00AA	DC XL2'00AA'	
18EB AAAA	18EC 1572	HAAAA	DC XL2'AAAA'	
18ED FFFF	18EE 1573	HFFFF	DC XL2'FFFF'	
18EF FFF8	18F0 1574	HFFF8	DC XL2'FFF8'	
18F1 FF55	18F2 1575	HFF55	DC XL2'FF55'	
18F3 C087	18F4 1576	DC	XL2'C087'	
18F5 125"	18F6 1577	BRNCH	DC AL2(RTRN)	

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ERR LOC OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	
18F7 F0F0	18F8	1578	C00 DC CL2'00'	
18F9 18C2	18FA	1579	INTR5 DC AL2(INT5)	INTERRUPT ROUTINE ADDRESS.
		1580		
		1581	*****	
		1582	* RESERVED AREAS *	
		1583	*****	
18FB 0000	18PC	1584	DTR DC XL2'0000'	STORAGE AREA FOR DATA TRANSFER REG.
18FD 0000	18PE	1585	TEMP DC XL2'00'	1-2 WORD WORKING AREA.
18FF 0000000000000000	190D	1586	WORK DC 15XL1'00'	WORK AREA.
1907 0000000000000000		1586		
190E 0000000000000000	1915	1587	LS DC 8XL1'00'	LIO/SNS STORAGE AREA.
1916 0000	1917	1588	LSCK DC XL2'0000'	ACTUAL SENSED DATA STORAGE AREA.
1918 0000	1919	1589	PATRN DC XL2'0000'	CURRENT TEST PATTERN STORAGE AREA.
191A 00	191A	1590	DC XL1'00'	CURRENT ERROR ID.
191B 00	191B	1591	NID DC XL1'00'	CURRENT N CODE.
191C 00	191C	1592	XPCT DC XL1'00'	EXPECTED DIAGNOSTIC BYTE.
		1593		
		1594	*****	
		1595	* FLAG *	
		1596	*****	
191D 00	191D	1597	EBFLAG DC XL1'00'	EB CYCLE FAILURE FLAG.
		1598	* BIT # N CODE EB BYTE #	
		1599	* 0 1 2	AN ACTIVE BIT MEANS *
		1600	* 1 1 1	A POSSIBLE EB CYCLE *
		1601	* 2 2 2	FAILURE. *
		1602	* 3 2 1	*
		1603	* 4 4 2	*
		1604	* 5 4 1	*
		1605	* 6 5 2	*
		1606	* 7 5 1	*
		1607	*****	
		1608		
		1609		
		1610	*****	
		1611	* MESSAGES *	
		1612	*****	
191E D9C5D4D6E5C540E6	194E	1613	RSIOC DC CL49' REMOVE WRAP CONNECTOR NOTE - CPU MAY DROP POWER.'	
1926 D9C1D740C3D6D5D5		1613		
192E C5C3E2D6D94040D5		1613		
1936 D6E3C5406040C3D7		1613		
193E 3440D4C1E840C4D9		1613		
1946 D6D740D7D6E6C5D9		1613		
194E 4B		1613		
194F C9C640F2D66B40E3	197B	1614	IPSO DC CL45' IF SO, TURN POWER BACK ON AND RELOAD PROGRAM.'	
1957 E4D9D540D7D6E6CS		1614		
195F D980C2C1C3D240D6		1614		
1967 D540C1D5C440D9C5		1614		
196F D3D6C1C440D7D9D6		1614		
1977 C7D9C1D44B		1614		
197C C6E4D5C3E3C9D6D5	198C	1615	PNCT DC CL17'FUNCTION REGISTER'	
1984 40D9C5C7C9E2E3C5		1615		
198C D9		1615		
		198C	1616 MSG1B EQU *-1	
198D D9C5D4D6E5C540F3	19B3	1617	DC CL39' REMOVE 3741 I/O CABLE. ALSO REMOVE THE'	
1995 F7F4F140C961D640		1617		
199D C3C1C2D3C54B4040		1617		
19A5 C1D3E2D640D9C5D4		1617		
19AD D6E5C540E3C8C5		1617		
19B4 40E6D9C1D740C3D6	19DB	1618	DC CL40' WRAP CONNECTOR. THEN PERFORM A SYSTEM '	
19BC D5D5C5C3E3D6D94B		1618		
19C4 40E3C8C5D540D7C5		1618		
19CC D9C6D6D9D440C140		1618		
19D4 32E8E2E3C5D44040		1618		
19DC 4040404040404040	1A03	1619	MSG1 DC CL40'	
19E4 4040404040404040		1619		
19EC 4040404040404040		1619		
19F4 4040404040404040		1619		
19FC 4040404040404040		1619		

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ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT

1A04	D9C5E2C5B340C1D5	1A03	1620	MSG2B	EQU	*-1
		1A2B	1621	DC	CL40'RESET AND START.'	
1A0C	C440E2E3C1D9E34B		1621			
1A14	4040404040404040		1621			
1A1C	4040404040404040		1621			
1A24	4040404040404040		1621			
1A2C	4040404040404040	1A53	1622	MSG2	DC	CL40'
1A34	4040404040404040		1622			
1A3C	4040404040404040		1622			
1A44	4040404040404040		1622			
1A4C	4040404040404040		1622			
			1623			
1A54	C4C1E3C140C1C4C4	1A53	1624	MSG4B	EQU	*-1
1A5C	D9C5E2E240D9C5C7	1A7B	1625	DC	CL40'DATA ADDRESS REGISTER FAILURE.'	
1A64	C9E2E3C5D940C6C1		1625			
1A6C	C9D3E4D9C5C4B4040		1625			
1A74	4040404040404040		1625			
1A7C	4040404040404040	1AA3	1626	MSG4	DC	CL40'
1A84	4040404040404040		1626			
1A8C	4040404040404040		1626			
1A94	4040404040404040		1626			
1A9C	4040404040404040		1626			
			1627			
1AA4	E2E3C1E3E4E240C2	1AC4	1628	STLCR	DC	CL33'STATUS BYTE-LENGTH COUNT REGISTER'
1AAC	E8E3C560D3C5D5C7		1628			
1AB4	E3C840C3D6E4D5E3		1628			
1ABC	40D9C5C7C9E2E3C5		1628			
1AC4	D9		1628			
1AC5	C961D640E3D9C1D5	1AD6	1629	IOTRL	DC	CL18'I/O TRANSFER LINES'
1ACD	E2C6C5D940D3C9D5		1629			
1ADS	C5E2		1629			
1AD7	C4C1E3C140C1C4C4	1AEB	1630	DADR	DC	CL21'DATA ADDRESS REGISTER'
1ADF	D9C5E2E240D9C5C7		1630			
1AE7	C9E2E3C5D9		1630			
1AEC	C4C9C1C7D5D6E2E3	1B11	1631	DIGTR	DC	CL38'DIAGNOSTIC BYTE-DATA TRANSFER REGISTER'
1AF4	C9C340C2E8E3C560		1631			
1AFC	C4C1E3C140E3D9C1		1631			
1B04	D5E2C6C5D940D9C5		1631			
1B0C	C7C9E2E3C5D9		1631			
1B12	C5C240C3E8C3D3C5	1B29	1632	BIGGEB	DC	CL28'EB CYCLE ANALYSIS CHECK.'
1B1A	40C1D5C1D3E8E2C9		1632			
1B22	E240C3C8C5C3D24B		1632			
1B2A	5C5CC5C2E740C3E8	1B46	1633	EBX	DC	CL29***EB CYCLE FAILED. N CODE X.'
1B32	C3D3C540C6C1C9D3		1633			
1B3A	C5C44B40D540C3D6		1633			
1B42	C4C540E74B		1633			
1B47	5C5CC2D6E3C840C5	1B68	1634	EB12	DC	CL34***BOTH EB CYCLES FAILED. N CODE X.'
1B4P	C240C3E8C3D3C5E2		1634			
1B57	40C6C1C9D3C5C44B		1634			
1B5P	40D540C3D6C4C540		1634			
1B67	E74B		1634			
1B69	5C5CC1D3D340C5C2	1B7P	1635	ALEB	DC	CL23***ALL EB CYCLES FAILED.'
1B71	40C3E8C3D3C5E240		1635			
1B79	C6C1C9D3C5C44B		1635			
1B80	5C5CC1D3D340C5C2	1B97	1636	ALEBX	DC	CL24***ALL EBZ CYCLES FAILED.'
1B88	E740C3E8C3D3C5E2		1636			
1B90	40C6C1C9D3C5C44B		1636			
1B98	E3C5B2E2340C4C1E3	1BBB	1637	TSCYC	DC	CL36'TEST DATA TRANSFER DURING EB CYCLES.'
1BA0	C140E3D9C1D5E2C6		1637			
1BA3	C5D940C4E4D9C9D5		1637			
1BB0	C740C5C240C3E8C3		1637			
1BB8	D3C5E24B		1637			
1BBC	C4C9C1C7D5D6E2E3	1BCA	1638	DIAG	DC	CL15'DIAGNOSTIC BYTE'
1BC4	C9C340C2E8E3C5		1638			
1BCB	D3C9D661E2D5E240	1BE0	1639	LSCKK	DC	CL22'LIO/SMS COMPARE CHECK.'
1BD3	C3D6E4D7C1D9C540		1639			
1BDB	C3C8C5C3D24B		1639			

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ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT

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1BE1 D3C9D640C6C1C9D3 1C0B 1640 LIORST DC CL43'LIO FAILED TO RESET LENGTH COUNT REGISTER.'
1BE9 C5C440E3D640D9C5 1640
1BF1 E2C5E340D3C5D5C7 1640
1BF9 B3C840C3D6E4D5E3 1640
1C01 40D9C5C7C9E2E3C5 1640
1C09 D94B40 1640
1C0C C4C9C1C7D5D6E2E3 1C21 1641 SIOCK DC CL22'DIAGNOSTIC BYTE CHECK.'
1C14 C9C340C2E8E3C540 1641
1C1C C3C8C5C3D24B 1641
1C22 E3C5E2E3'40C1C2C9 1C31 1642 TSIO DC CL16'TEST ABILITY TO'
1C2A D3C9E3E840E3D640 1642
1C32 C7D640E3D640F3F7 1C53 1643 MAPSS DC CL34'GO TO , '41 MAPS, PAGE 000 ENTRY 0.'
1C3A F4F140D4C1D7E26B 1643
1C42 40D7C1C7C540F0F0 1643
1C4A F040C5D5E3D9E840 1643
1C52 F04B 1643
1C54 D3D6C1C461E2C5D5 1C7D 1644 VNOD DC CL42'LOAD/SENSE DATA ADDRESS REGISTER WITH'
1C5C E2C540C4C1E3C140 1644
1C64 C1C4C4D9C5E2E240 1644
1C6C D9C5C7C9E2E3C5D9 1644
1C74 40E6C9E3C8404040 1644
1C7C 4040 1644
1C7E 40C2C9E340D7C1E3 1C8B 1645 LSDAR DC CL14' BIT PATTERNS.'
1C86 B3C5D9D5E24B 1645
1C8C C5E5C5D5 1C8F 1646 EVEN DC CL4'EVEN'
1C90 D6C4C440 1C93 1647 ODD DC CL4'ODD'
1C94 F3F7F4F140C9E240 1CA0 1648 BUSSY DC CL13'3741 IS BUSY.'
1C9C C2E4E2E84B 1648
1CA1 F3F7F4F140C9E240 1CAE 1649 RDY DC CL14'3741 IS READY.'
1CA9 D9C5C1C4E84B 1649
1CAF E3C5E2E340F3F7F4 1CC5 1650 TOBSY DC CL23'TEST 3741 FOR NOT BUSY.'
1CB7 F140C6D6D940D5D6 1650
1CBF E340C2E4E2E84B 1650
1CC6 E3C5E2E340F3F7F4 1CDD 1651 TORDY DC CL24'TEST 3741 FOR NOT READY.'
1CC8 F140C6D6D940D5D6 1651
1CD6 E340D9C5C1C4E84B 1651
1CDE D540C3D6C4C540E7 1CE6 1652 THD DC CL9'N CODE X.'
1CE6 4B 1652
1CE7 F040F140F240F340 1CF5 1653 BITS DC CL15'0 1 2 3 4 5 6 7'
1CEP F440F540F640F7 1653
1CF6 60C5C2F140C2E8E3 1CPF 1654 EB1 DC CL10'-EB1 BYTE-'
1CFE C560 1654
1D00 60C5C2F240C2E8E3 1D09 1655 EB2 DC CL10'-EB2 BYTE-'
1D08 C560 1655
1D0A SCC5D9D9D6D95C 1D10 1656 ERORS DC CL7'*ERROR*'
1D11 D9C5C1C461E6D9C9 1D2B 1657 NTRST DC CL27'READ/WRITE LATCH NOT RESET.'
1D19 E3C540D3C1E3C3C8 1657
1D21 40D5D6E340D9C5E2 1657
1D29 C5E34B 1657
1D2C C9D5E3C5D9D9E4D7 1D48 1658 INTR DC CL29'INTERRUPT ENABLE REG WT CHECK.'
1D34 E340C5D5C1C2D3C5 1658
1D3C 40D9C5E2C5E340C3 1658
1D44 C8C5C3D24B 1658
1D49 D5D660D6D740D2C1 1D61 1659 NOSEE DC CL25'NO-OP LATCH FAILS TO SET.'
1D51 E3C3C840C6C1C9D3 1659
1D59 E240E3D640E2C5E3 1659
1D61 4B 1659
1D62 D5D660D6D740D3C1 1D7C 1660 NORES DC CL27'NO-OP LATCH FAILS TO RESET.'
1D6A E3C3C840C6C1C9D3 1660
1D72 E240E3D640D9C5E2 1660
1D7A C5E34B 1660
1D7D D3D6C1C461E2C5D5 1DA4 1661 TSPAT DC CL40'LOAD/SENSE WITH TEST PATTERN -XXXX- THE'
1D85 E2C540E6C9E3C840 1661
1D8D E3C5E2E340D7C1E3 1661
1D95 E3C5D9D54060E7E7 1661
1D9D E7E76040E3C8C540 1661
1DA5 4060E7E76040 1DAA 1662 SHORT DC CL6' -XX- '
1DAB E3C5E2E340C1C2C9 1DDD 1663 INVAL DC CL51'TEST ABILITY OF 3741 TO REJECT 15 INVALID COMMANDS.'

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#011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT

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1DB3 D3C9E3E840D6C640 1663
1DBB F3F7F4F140E3D640 1663
1DC3 D9C5D1C5C3E340F1 1663
1DCB F540C9D5E5C1D3C9 1663
1DD3 C440C3D6D4D4C1D5 1663
1DBB C4E24B 1663
1DDE C4D640E2E8E2E3C5 1E01 1664 INV1 DC CL36'DO SYSTEM RESET AND START, 16 TIMES.'
1DE6 D440D9C5E2C5E340 1664
1DEE C1D5C440E2E3C1D9 1664
1DP6 E36B40F1P640E3C9 1664
1DFE D4C5E24B 1664
1E02 C5E7D7C5C3E340D7 1E32 1665 DC /CL49'EXPECT PROCESS CHECK AFTER EACH SYSTEM RESET AND '
1E0A D9D6C3C5E2E240C3 1665
1E12 C8C5C3D240C1C6E3 1665
1E1A C5D940C5C1C3C840 1665
1E22 E2E8E2E3C5D440D9 1665
1E2A C5E2C5E340C1D5C4 1665
1E32 40 1665
1E33 E2E3C1D9E34B 1E38 1666 IVL DC CL6'START.'
1E39 C9D525C1D3C9C440 1E5C 1667 FLWNG DC CL36'INVALID COMMAND WAS ACCEPTED. XXX N'
1E41 C3D6D4D4C1D5C440 1667
1E49 B6C1E240C1C3C3C5 1667
1E51 D7E3C5C44B4040E7 1667
1E59 E7E740D5 1667
1E5D E2C5D5E2C540E3C8 1E66 1668 SNTHE DC CL10'SENSE THE '
1E65 C540 1668
1E67 E2C5D5E2C540C3C8 1E72 1669 SNCKMS DC CL12'SENSE CHECK.'
1E6F C5C3D24B 1669
1E73 5C5CD5D6E3C55C5C 1E9B 1670 CNCTR DC CL41***NOTE** IF A WRAP CONNECTOR IS ATTACHED.'
1E7B 40C9C640C140E6D9 1670
1E83 C1D740C3D6D5D5C5 1670
1E8B C3E3D6D940C9E240 1670
1E93 C1E3E3C1C3C8C5C4 1670
1E9B 6B 1670
1E9C D9C5D4D6E5C540C9 1EC0 1671 RMOV DC CL37'REMOVE IT AND DO SYSTEM RESET, START.'
1EA4 E340C1D5C440C4D6 1671
1EAC 40E2E8E2E3C5D440 1671
1EB4 D9C5E2C5E36B40E2 1671
1EBC E3C1D9E34B 1671
1EC1 C9C640C3D6D5D5C5 1ED9 1672 IFOPFF DC CL25'IF CONNECTOR IS OFF THEN.'
1EC9 C3E3D6D940C9E240 1672
1ED1 D6C6C640E3C8C5D5 1672
1ED9 6B 1672
1EDA F3F7F4F140C9D5E3 1EEE 1673 SIOC4 DC CL21'3741 INTERRUPT CHECK.'
1EE2 C5D9D9E4D7E340C3 1673
1EEA C8C5C3D24B 1673
1EEP 1F49 1674 PRT DS CL91 PRINT FIELD.
1F4A 40 1F4A 1675 DC XL1'40' CLEARING BYTE.

1676
1677 ****
1678 * EQUATES *
1679 ****
0008 1680 ARR EQU X'08'
0222 1681 HALT EQU X'22'
0216 1682 LINK EQU X'216'
022A 1683 LOAD EQU X'22A'
021A 1684 PRINT EQU X'21A'
021E 1685 UNPACK EQU X'21E'
0001 1686 XR1 EQU X'01'
0002 1687 XR2 EQU X'02'
0084 1688 TARS EQU X'84'
0A03 1689 RTN# EQU X'0A03'
0080 1690 SSW10 EQU X'80'
0080 1691 SSW00 EQU X'80'
0208 1692 SBYTE0 EQU X'0208'
020A 1693 SBYTE2 EQU X'020A'
0R07 1694 FRTN EQU X'0A07'
18CE 1695 H0000 EQU N000

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ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT

18D0	1696	H0001	EQU	H001
17BF	1697	DROPD	EQU	TIOERB
1EC0	1698	INTRO	EQU	RMOV
0A11	1699		END	BEGINN

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

CROSS-REFERENCE

SYMBOL	T	LEN	VALUE	DEFN	REFERENCES									
ACT	A	002	163E	1315	1124*	1169	1234*	1297*	1329	1333	1338	1342		
ADDIT	A	006	156C	1239										
ALEB	A	023	187F	1635	0330									
ALEBX	A	024	1897	1636	0324*	0326*	0327							
ALTER	A	004	0A43	0047	0044									
ARR	C	001	0008	1680	1089*	1090	1119*	1120	1122*	1123	1125*	1126	1128*	1129
					1185*	1186	1248	1250*	1251	1253*	1254	1267	1269*	1270
					1372	1375*	1376	1409	1464	1483	1495*	1486	1530	1533
BADINT	A	004	0FA7	0712	0700									
BEGIN	A	001	0A0D	0024	0017									
BEGENN	A	001	0A11	0028	0052	1442	1699							
BIGEB	A	004	0D19	0367	0328	0331	0339							
BIGGEB	A	024	1B29	1632	0370									
BITS	A	015	1CP5	1653	1162	1165	1218	1219	1226	1286				
BITSNF	A	004	16E1	1371	1168	1230	1291							
BRNCH	A	002	18P6	1577	0984									
BTNP	A	004	173D	1397	1376*									
BUSSY	A	013	1CA0	1648	1447									
CALC	A	004	1548	1230	1223									
CKBYT	A	004	0BP2	0281	0277*	0285*	0287							
CKKLS	A	004	14A7	1190	1186*	1239*	1240							
CKRST	A	004	10E8	0841	0801	0943								
CKRSTT	A	003	10E3	0838	0830									
CKS	A	004	1637	1304	1270*	1273	1303*							
CKSIO	A	004	15B0	1267	0702	0789	0628							
CMPAPW	A	004	162P	1317	1171	1235	1298							
CMPR	A	004	1697	1346	1317*									
CNCTR	A	041	1E9B	1670	1431									
COD	A	006	1804	1484	1483*									
CODD	A	004	1898	1523	1486*									
CODE	A	004	1800	1483	0392	0425	0458	0493	0619	0654				
COO	A	002	18F8	1578	1510									
DADR	A	021	1AE8	1630	1206									
DARCK	A	004	0E80	0563	0556									
DIAG	A	015	1BCA	1638	0213	1146	1282							
DIGTR	A	038	1B11	1631	1209	1502								
DORST	A	003	107P	0799	0791									
DROPD	A	004	17BF	1697	0129	0132	0261	0690	0736	0778	0818	0876	0905	0925
DTR	A	002	18FC	1584	0698*	0744*	0746	0786*	0825*	1272	1292	1297		
DUG	A	002	0B97	0233	0225*	0226	0226							
EBERR	A	006	0C94	0330	0292									
EBFLAG	A	001	191D	1597	0278*	0283*	0291	0293	0295	0298	0300	0302	0305	0307
					0313	0315	0317	0342	0349	0356				
EBX	A	029	1B46	1633	0341*	0344*	0346*	0348*	0351*	0353*	0355*	0358*	0360*	0363*
														0364*
EBXX	A	006	0D13	0365	0347	0354	0361							
EB1	A	010	1CFF	1654	1159	1216	1224							
EB1ERR	A	004	0C7E	0324	0294									
EB1T	A	001	16B0	1369	1374*	1389								
EB12	A	034	1B68	1634	0333*	0335*	0337*	0338						
EB2	A	010	1D09	1655	1156	1215	1284							
EB2ERR	A	004	0C86	0326	0296									
EB2T	A	001	16DF	1368	1382									
EPBN1	A	004	189C	1530	1160	1170	1217	1225	1232	1285	1294	1432	1436	
EPBN2	A	004	18A7	1533	0372	1147	1166	1173	1210	1220	1227	1237	1283	1287
ERORS	A	007	1D10	1656	1172	1236	1299							
ERSN	A	004	14B4	1174	1129*									
ERST	A	004	10PE	0851	0842									
ERDA	A	004	0E28	0520	0503									
ER14	A	004	137B	1089	1008	1013	1018	1024	1029	1034	1039	1045	1050	1055
					1071	1076	1081							
EVEN	A	004	1C8F	1646	0543									
E13	A	004	1208	0959	0934									
E13A	A	004	11ED	0947	0938									
FINEB	A	006	0CB0	0338	0334	0336								
FLAG	A	001	18C1	1549	0692*	0699	1550*							
FLWNG	A	036	1B5C	1667	1091*	1092	1093							

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

CROSS-REFERENCE

SYMBOL	T	LEN	VALUE	DEPN	REFERENCES													
PUNCT	A	017	198C	1615	1200	1490												
PRTN	C	001	0A07	1694	0042*													
GOHD	A	004	1884	1516	1511													
HAAAAA	A	002	18EC	1572														
HAA55	A	002	18E0	1566	0391	0558	0560											
HALT	C	001	0222	1681	0049	0151	0193	0238	0375	0408	0441	0476	0514	0527	0571	0637		
					0672	0708	0719	0759	0795	0834	0858	0954	0966	1000	1103	1440		
					1451													
HDNGID	A	002	188D	1520	1515*													
BFFFF	A	002	18EE	1573	0502													
BFFF8	A	002	18F0	1574	1418													
HFF55	A	002	18F2	1575	0266	0267	0268	0269										
SPLXX	A	002	0A4C	0050	0043	0045*	0047*											
HOP55	A	002	18E8	1570	0133													
H00AA	A	002	18EA	1571	0492	0653												
H0000	A	002	18CE	1695	0128	0130	0904	0930	1023	1028	1033	1038						
H0001	A	002	18D0	1696	0602													
H0055	A	002	18E6	1569	0457	0618												
H0080	A	002	18DE	1565	0696	0741	0783	0823	0881									
H1000	A	002	18E4	1568	0599													
H55AA	A	002	18E2	1567	0424	0553	0555											
IARS	C	001	0084	1688	0691*													
IFOFF	A	025	1ED9	1672	1435													
IPSO	A	045	197B	1614														
IMTR	A	029	1D48	1658	0754													
INTRO	A	037	1EC0	1698														
INTR5	A	002	18FA	1579	0691													
INT5	A	004	18C2	1550	1552	1579												
INVAL	A	051	1DD0	1663	0989													
INVL	A	030	1E01	1664	0994													
IOTRL	A	018	1AD6	1629	0168	1143	1498											
ITON	A	004	1731	1393	1390													
ITSON	A	004	171B	1386	1383													
IVL	A	006	1E38	1666	0998													
LDB	A	002	0AEB	0146	0138*	0139	0139	0932*	0133									
LINE	A	001	18B3	1537	1531*	1534*												
LINK	C	001	0216	1682	0074	0101	0116	0140	0153	0182	0195	0210	0227	0240	0320	0377		
					0404	0410	0437	0443	0472	0478	0510	0516	0529	0561	0574	0605		
					0633	0639	0668	0674	0704	0710	0721	0747	0761	0797	0836	0844		
					0860	0884	0908	1085	1453									
LIDPST	A	043	1C0B	1640	0523													
LICNSNS	A	004	1488	1182	0401	0434	0469	0507	0630	0665								
LOAD	C	001	022A	1633	0846	0956	0968											
LS	A	001	1915	1587	0271*	0272*	0273*	0274*	0276									
LSCK	A	002	1917	1588	0399*	0432*	0465*	0467*	0500*	0502	0505*	0554*	0555	0559*	0560	0600*		
					0603*	0626*	0628*	0661*	0663*	1188	1231	1234						
LSCKK	A	022	1BE0	1639	1196													
LSDAR	A	014	1C8B	1645	0547	0593												
LSYD	A	002	14BA	1197	1192*													
L3741	A	001	0000	0005														
MAPS	A	008	17D9	1464	0148	0190	0235	0373	0406	0439	0474	0512	0525	0568	0635	0670		
					0706	0717	0756	0793	0832	0856	0952	0964	1101	1438	1449			
MAPSS	A	034	1C53	1643	1466*	1467*	1468*	1469*	1474									
MSG1	A	040	1A03	1519	0031	0032												
MSG1B	A	001	198C	1616	0031													
MS32	A	040	1A53	1622	0036	0037												
MSG2B	A	001	1A03	1620	0036													
MS38	A	040	1A13	1625	0565	0566												
MSG4B	A	001	1A53	1624	0565													
NCODD1	A	004	0CBA	0341	0306	0308												
NCODD2	A	004	0CD5	0348	0310	0312												
NCODD4	A	004	0CF0	0355	0314	0316												
NCODD5	A	004	0DQB	0363	0318													
NCOD1	A	004	0C9E	0333	0299													
NCOD2	A	004	0CA5	0335	0301													
NCOD4	A	004	0CAC	0337	0303													

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

CROSS-REFERENCE

SYMBOL	T	LEN	VALUE	DEPN	REFERENCES
NF	A	004	171F	1387	1379* 1384* 1385 1386* 1400*
NFP	A	004	1735	1394	1380* 1391* 1392 1393* 1401*
NID	A	001	191B	1591	1184* 1192 1198 1201 1204 1207 1211 1213
NORES	A	027	1D7C	1660	0950
NORM	A	004	143A	1154	1151
NOSEE	A	025	1D61	1659	0962
NTRST	A	027	1D2B	1657	0854
N000	A	002	18CE	1557	1695
N001	A	002	18D0	1558	0285 1119 1125 1128 1182 1185 1253 1269 1371 1375 1485 1696
N002	A	002	18D2	1559	1122 1353 1354 1400 1401
N003	A	002	18D4	1560	1412
N004	A	002	18D6	1561	1089 1239 1303
N018	A	002	18D8	1562	1069 1074 1079
N019	A	002	18DA	1563	1006 1011 1016 1022 1027 1032 1037 1043 1048 1053 1058 1063
N029	A	002	18DC	1564	1250
ODD	A	004	1C93	1647	0589
PATRN	A	002	1919	1589	0391* 0398 0424* 0431 0457* 0464 0492* 0499 0618* 0625 0653* 0660
PRINT	C	001	021A	1684	0029 0034 0065 0090 0121 0170 0215 0255 0367 0520 0544 0563
					0590 0712 0751 0851 0947 0959 0986 0991 0995 1095 1131 1193
PRNT	A	004	18AF	1536	1532
PRT	A	091	1F49	1674	0039* 0040 0080* 0118* 0119* 0120* 0124 0126 0126* 0167* 0168* 0169*
					0173 0175 0175* 0212* 0213* 0214* 0218 0220 0220* 0327* 0330* 0338*
					0365* 1092* 1094* 1098 1100 1100* 1139* 1140* 1143* 1146* 1149 1154
					1156* 1159* 1162* 1165* 1172* 1200* 1203* 1206* 1209* 1215* 1216* 1218*
					1219* 1221 1222 1224* 1226* 1228 1236* 1252* 1256* 1260 1262 1262*
					1281 1281* 1282* 1284* 1286* 1289 1290 1293 1293* 1299* 1300 1300*
					1431* 1433* 1435* 1490* 1491* 1494* 1495* 1498* 1499* 1502* 1503* 1509*
					1513* 1519 1521 1521* 1539 1540 1540*
PITT	A	004	18BD	1541	1530* 1533*
PUTBAK	A	005	1371	1084	1105
QS	A	004	176E	1413	1409* 1412* 1416 1417 1419
QST	A	004	1772	1415	1411
QUES	A	004	175D	1409	0071 0096 0135 0177 0222 0263 0335 0428 0461 0496 0550 0596
					0622 0657 0693 0738 0780 0820 0878 0901 0927
RDY	A	014	1CAE	1649	1429
REPIT	A	004	123D	0991	1003
RMOV	A	037	1EC0	1671	1433 1698
RSICC	A	049	194E	1613	
RTN*	C	001	0A03	1689	0843 1137 1141 1144 1150 1157 1163 1515
RTNOA	A	001	0DE3	0488	0455
RTNOB	A	001	0E42	0539	0490
RTNOC	A	001	0E98	0585	0541
RTNOD	A	001	0EC7	0614	0587
RTNOE	A	001	0F03	0649	0616
RTNOF	A	001	0F3F	0683	0651
RTNO1	A	001	0A51	0661	0026 0041
RTNO2	A	001	0A6E	0086	0063
RTNO3	A	001	0A8B	0111	0088
RTNO4	A	001	0AFD	0163	0113
RTNO5	A	001	0B4F	0205	0165
RTNO6	A	001	0BA9	0251	0207
RTNO7	A	001	0D37	0387	0253
RTNO8	A	001	0D6F	0420	0389
RTNO9	A	001	0DA7	0453	0422
RTN10	A	001	0FC1	0729	0689
RTN11	A	001	1022	0771	0731
RTN12	A	001	108A	0811	0772
RTN13	A	001	1118	0869	0813
RTN14	A	001	1154	0894	0871
RTN15	A	001	1190	0918	0896
RTN16	A	001	1223	0979	0920
RTRN	A	006	1257	1006	1577
SBYTE0	C	001	0208	1692	0115 0209
SBYTE2	C	001	020A	1693	1419

4011 3741 FUNCTION TEST WITHOUT THE WEAP CONNECTOR

CROSS-REFERENCE

SYMBOL	T	LEN	VALUE	DEFN	REFERENCES
SERID	A	002	15D4	1279	1268*
SHDD	A	004	15AC	1263	1254*
SHORT	A	006	1DAA	1662	1512* 1513
SID	A	002	15A5	1261	1249*
SIOCK	A	022	1C21	1641	1278
SIOC4	A	021	1EEE	1673	0715
SIOHD	A	004	1576	1248	0687 0733 0775 0815 0873 0898 0922
SNCKMS	A	012	1E72	1669	1134
SNRID	A	002	13P6	1135	1127*
SMSERB	A	004	13BB	1119	0144 0186 0231
SMTHE	A	010	1E66	1668	0118 0167 0212
SPL2	A	006	152C	1224	1212 1214
SSW00	C	001	0080	1691	0115 0209
SSW10	C	001	0080	1690	1410
STBN	A	004	0BFA	0283	0279* 0284 0284* 0286
STLCR	A	033	1AC4	1628	0119 1139 1140 1203 1494
TAERR	A	004	16CF	1357	1318* 1330 1334 1353*
TA1	A	004	1674	1333	1322* 1328 1347 1347*
TA2	A	004	166A	1329	1321* 1348 1348*
TA3	A	004	1663	1327	1320* 1349 1349* 1355
TBERR	A	004	16D7	1359	1319* 1339 1343 1354*
TB1	A	004	168C	1342	1325* 1337 1345 1350 1350*
TB2	A	004	1682	1338	1324* 1351 1351*
TB3	A	004	167B	1336	1323* 1331 1352 1352* 1358
TC	A	004	1693	1345	1340 1360
TEMP	A	002	18FE	1585	0800* 0839* 0841 0942* 1007* 1012* 1017* 1464* 1465
THD	A	009	1CE6	1652	1093* 1094 1484* 1488 1492 1496 1500
TIDERR	A	004	17BF	1444	0099 0785 0939 1697
TIDERD	A	004	1787	1426	0076
TINF	A	004	170D	1382	1377* 1396 1398 1398* 1402
TNFF	A	004	1723	1389	1378* 1399 1399*
TOBSY	A	023	1CC5	1650	0093
TORDY	A	024	1CD0	1651	0068
TEL	A	002	0B3D	0188	0131* 0180* 0181 0181
TSCYC	A	036	1BBB	1637	0258
TSIO	A	016	1C31	1642	1256
TSPAT	A	040	1DA4	1661	1508 1509 1510 1512
UNPACK	C	001	021E	1685	1505
VHOD	A	042	1C7D	1644	0543* 0589*
WORK	A	001	190D	1586	0936* 0937 0983* 1084 1152 1229
XPCT	A	001	191C	1592	0701* 0788* 0827* 1272 1296
XPT	A	002	163C	1314	1121* 1233* 1296* 1327 1336
KR1	C	001	0001	1686	0041* 0042 0276* 0277 1152* 1154* 1222* 1228* 1290* 1319 1380 1417*
KR2	C	001	0002	1687	1418 1465* 1466 1467 1468 1469 1476
				1149* 1221* 1229* 1289* 1318 1379	

TOTAL STATEMENTS FLAGGED IN THIS ASSEMBLY =

0

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

OBJECT CARD LISTING

THE CHARACTER **I** INDICATES A BLANK COLUMN AND THE CHARACTERS **D P H** INDICATE NUMERIC SHIFT.

CL 1 THRU 16 CL 17 THROUGH 32 CL 33 THROUGH 48 CL 49 THROUGH 64 CL 65 THROUGH 80 CL 81 THROUGH 96

GBK GBD PN 55 58420 EC 824870 3741 ATT TEST W/ O WRAP CONNECTOR 840084aa 40110000
 T+ Y:6AD ** & B-, ""4A& ** D BVG /OH E&P*E 4C-0H*BF-R &PV<D&A*HCY-KJ* H0-DHML8AB-*'8 Z <AYD E 040110001
 T+-Z5A33-B032/0E 086Z<0H*BHUC/0H* HD&D BW* /0HEJJ- *7MB/0H*PP- @|<E ** /\$ /1;G - HS@B G /Y 6 040110002
 T+-D0JJ**1MBS0H* PP- @|<EBE#* /OH 0 0 H*LS -T D H OC U:=A9WCB ~FJ, D1D8-PXBG /ZFO1' I&H< :E40110003
 T+-,,CEY-KJ*H<MD Q3%EBE#*@1J,JT+<D< .|*EBE#*@1JATYOH* PP- @|CABB>%(* S, ,B>X -EHOH*L>8 **** 1:040110004
 T+-XW @BGE*WGE*B G SI @BG /QD _ |C U:=A9WCAD-B/, O|D8-B@BG /ZFO1' I&H<CO/'IG4, /1))ACO 43<40110005
 T+-_/_CACB34(8% 'B3? -EHOH*L>0 **** DOH*P6Q;AOH* BHU DOH*BE-M B:U 8- HRCA BE-0IGT- ;R-0 6K@40110006
 T+->*C/3GP@Y@K1@ H0H*BFUR\$G4V Z@1 EG4U->BGR570|CO OJS>PC6 .V->H0RD BE%BGD\$% *** F*B GE'U \$B 40110007
 T+-?PSAG /0HSE P /0HOA- ((2BG /Z EIA>#5H\$AE/;^0H* PP- @|CEAF|H18/T 2<HEQ@TEEF|H0&JU |<DH RJ-40110008
 T+-OKFJD0JAUL<DM RE*HAFJM4 6?5| RGLOAB%" 0 D .TY FJ4+ ?#B%" | &5P(9#02#0I .@T4 EK840110009
 T+-1(010)0HD<VC5 LPJ7 -61=|EREG*B ACHQ@OAU)0HD<XT4 0PJ7 -62V|&0RG*B ACH08EAU)0A <>TS FJ4 LI-40110010
 T+-2H0A <>T-6FJ7 D 3N+B RG* EC(M 8KAU)0A <@C-HFJ7 D 30+ DRG* EC? /0HO||DSS<BGCHY 88/% JQ440110011
 T+-3CS 0PG0Q\$V@B GJU<E/BEP7" /04 R| |D\$R*HGB332F6~ 2/06a@A_XCBD-DA_ YOH*(PL31F4M85AU)0A RRQ40110012
 T+-3=C<800/%>0H* <4T31F2#2/3800/_ E+A RG* EC+U@@/% >0H*<#L31F2#2/2< @|A_E+ &RG* EC&E 88/% S-Y40110013
 T+-49.%BGC&-@3J% >AY*H| |M\$JL31F28 <GA@.P4\$ /0HE0/- \$HM FOHQZ@BGE*W HM*BG SI A%BG /Q G 4 ;B<40110014
 T+-54\$00AFJUQ8<B GP C10H*PP- @|CE ARJU06JUPOH*MS - 10H*BE%BG*WHU*B G SI A@BG /QH 6 XC D PLH40110015
 T+-6?PJuQ8%BGF C 10H*PP- @|CEAFJU 06JUPOH*MS T10H* BE%BG*WHU*BG SI B<BG /QI 7TC D RFJ- :YD40110016
 T+-7D9%BGF C20H* PP- @|CEBFJU06/U PI REXBGER-I@%B G /\$ /1-RSJG /0H SS X /0HOB- +E-0 AFJU 3-B@40110017
 T+-8VF+, /1- @%B GE570|C018/UR<DH RE04 P+8RE=HAGTO FJS /1KHB?. /0H 00H*P6QUJ0H*BHU HOB* JR@40110018
 T+-9- /\$ /0HE0S% *B4 <0H*P6QUK0H* BHU <0H*BE-% CZ- <11'GH" /0HEJT- *S4B,0H*PP- @|CE DF+H :ED40110019
 T+-:\$D5RE04AF+H RE HADTEDF+ OJAU PC&DQ8AUPOHDBE% B G /,PMADTOH*F6QU LOH*BHUAX0H*BE-0 C%* .<40110020

IBB MAINTENANCE DIAGNOSTIC PROGRAM

PAGE NO. 555421
PAGE 181

4011 3741 FUNCTION TEST WITHOUT THE WRAP CONNECTOR

OBJECT CARD LISTING

CL 1 THROUGH 16 CL 17 THROUGH 32 CL 33 THROUGH 48 CL 49 THROUGH 64 CL 65 THROUGH 80 CL 81 THROUGH 94

R++#OC <~J2L0H* BPUQ8GH_ ,<BG57 0|C01JAT8<DEBE3E DP(OJAUPH-BE-4 COCK SURP+S /1- 4011-100021A

T+-@J/1))@C0@<MM RFLAEFJ*2 AU00H* HSAC50H*BEXBG7H 1<*BG SI DKBG /0 + 0FC DRESTDORH Q JF 40110022

T+-"COH*PP-@ICE EPJU0JJUP! "REXB GEH-J**BG /\$ /1- BSLG /0HSEAG /0H CCO |0*BGEPH28K* TCK* NE*40110023

T+-=G5*GB4@N 2) P T1) XB9 (~T&(!A8@) HK4A OMHP?3ODP!Y * JTAOH*PP-@ICE AP/036 H0JIT@ D 0046 81 40110024

T+-"BDA+@DAU*0H* NKA. /0HO0H*P6QV JOH*BHU KOH*REXB G /,BEJ@>EA, /1- RSL /0HSECA, /0H DD 0,040010025

T+-"DB. /186% (X B8XPT6<PN0*.L1MC I5;|E6)X05=(40G TOA/.OMHP?3BG57 0|C016JT;34 B34 0<DP JG*40110026

T+/ 8F|08DAT#0I BEXBG /,BGJ5H6A| /1-RSPG /0HSEAI /0HODE GS*BGEPH 18XPT6 (XEG*3 00G 184 40110027

T+/A3C@GT09/.EDA &DA &DA OMHP?@B GE570|C016JT;34D OMHP?3AEZ|02 10 *OMPAKAL /187OB* 2600 40110028

T+/B>U*BG SI EKB G /\$36 -0JJT=0H* 6:/H DJT /186%. E84CE6*XT1HCC0) I DS(|A8@|HK4A EDA 50 81 40110029

T+/CZS<EBE*"/1))@C0@<MDQ7?(B CA EP|03AJU*0H*NKA P /1CTOH*P6B 10H* BHD NOH*BE? (BCA EF)8 40110030

T+/DU1& Q"~HACL4 NB-1 "6HO0H*BH-C /0HE0/%)H4 00H* P6QWKOH*DHU OGH* BZ/C DNL /186%3L 0046 81 40110031

T+/E~5_PT6) \$L5|E 8>|A6; (20GOK4A &DA &KEBE*"/1))@C0@<MDQ7?(CMA G /QM AP6OH*H, L D50 6, 40110032

T+/PE0 '\$N8' X044C 26+.T0) XT&<V/5U_ &DA EDC /1))@C0 &KFDQ3%EBE*733) " /0HOB6 KH3BGEPH 5846 BD*40110033

T+/GN84CA5*J 6*p S1; (5)R-5_) 40G TOA/.EDA OMHP?@B GE570|C016JT+34D <DRH:3-DB>,28Cn 05/D)1040110034

T+/H&CL-DF632D " A6/;"#04 H<DMQ"XB GD+, /0HE0/%)~D QOH*P6RAKOH*BHU QOH*BE-C /0HED/0)0H 40110035

T+/I.E@BGE"WSM*B G SI E@BG SY ZYC ""00CP64 00C < Q*BG /ZB<17)E.S /0BE SG; *BG /Y F(18) 8<40110036

T+/~HF+<BG SI *XB GDT4+ & CP(Y0&AT =0H*L;=.N8UC0C-D " 1TE<DDQ*%BGD7? S5;T 1-BA <Q5TA GP|8 40110037

T+/A0H*L;=.N8UC 7C-D " 1TE<H Q3XB GD73L2)R @ 8A < Q6TECP6 /1(042X 05;C+ & CP(Y1J/T +0B* 30H40110038

T+/@D7?L2)R "-8 A 1-Q6TEGP< /1(#4@X06!** & CP(, A&J. WOH*L;=)150C 1C-D " 1TE0M5K-*B GDT% QP640110039

T+/<>78@X06|&+ 6 CP(, AJJ<03*L;=) 15UC5C-D " 1TE0HQ LG@BGD7?T2)R "-8 A <Q6*BGD3L /1(#830 K2E40110040

T+/(25UC7C-D " 1T Q@4H 0H*L;=.15UC 5C-D " 1TQ34Q 0H* L;=)15UC6C-D " 1T Q@4* 0H*L;=.150C 7C < Q#440110041

T+/-" CRC*BG /Q 6BATO{ -LS 0DGVO "" OTG1H;P 0 G+M ;P 0EG1Y*9%BG /, BG1'ISAUKO/1IG4, /1* 10040110042

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OBJECT CARD LISTING

CL 1 THROUGH 16 CL 17 THROUGH 32 CL 33 THROUGH 48 CL 49 THROUGH 64 CL 65 THROUGH 80 CL 81 THROUGH 96

T+/-Y6RALOH*BHU R0H*L*LQHF(4BAI HC DOJ *** (--Q4TE HD*Q< JQ= *** 6BAT & (-L9 0 D*Q CQ HF(0CD40110043

T+/-ST(-H@BG /, BCA926 *** OYC@-D < C Y-AAD>C @-P1D " | E&H " HAA-0JG1H EST4EB-12 &Q<C/a PPAY MLX40110044

T+/-J;0H*QZ@HBG0Q "A8YCB-DG0-DRC-H GA<HAG1Y<BJ@CG&U "A8YCBAYDPC U-E13 "0H*QX 0+GOQ**L4 EB-< L.440110045

T+/-K80YDFC 8-P/3 50H*QZ@BGE>DOJ%8 GF13 /1Q*C Q;J4 60H*QZ@BG *** 6BAT & (-MV&0AFJ% CQ HF(0JH40110046

T+/-LM(-MD-4AFJ* RF-HAA<BG *** < AK :PJ, /0HE0/Q\$8D " | -DRP" HAA-08G1H RTC72FJ?2 &Q<C1@ GF,a -Z-40110047

T+/-H|) ~&RF" HAA-0 MG1<E: 375FJ?2 &Q <DA@GP03 /1SX|~H RF" HAA<T75FJ?2-KX <BJ@CG&U<BJ@PG| " /1- M0R40110048

T+/-NHK 0+GOQ**S0 +G1Y**BGPH-E /a F0-D-P?HGG 0IG0< **@BGFI0<C/@ZGIP /1SX0-D-AKHBF67 /1Q STM40110049

T+/-OE8JUP0H*QX 0 AET0RF60AET8RE@B GET0<A/#5GJC /1S XC-DMD/TO0H*MZ36 HEP@C AOV *** 6BAT *(- YD40110050

T+/-P EQ4<GA@S *** 6BAT&(-N,001G?8 *<**BG /ZEO1*IE *** <0/IG4, /0 *** (- N>E0 E)& ** CQHF(4BAQ "S<40110051

T+/-P#-4 PJ0Q="H A\$<BG /,BE/0/8 H <0/IG4Y<C/@PP@, /1SX C U- 14I0H* QX 0+GOQ**BGPH- B /a *AU40110052

T+/-Q6AXHAG1, /1\$ /F10<C/@EG1? /1S *C 0+1U*C DOJ/T 00H*0100FG?M) D 0 +G1Y-F@BGPH*+ JQ :F(0 32-40110053

T+/-R10H* 4BAEE(H04TEAE_Y @ JRU| DOE30AEXM @ JRA| DO-30AEY4 8 JQ@a/ H+ DOJ~H &P2H N&Q40110054

T+/-E/0*8 JQ@Z@ M+ DOJ| HEBT-AET# 2DD#2/0*8 JQ=@Z@ D+H OT* & *** + AR SExH+ AR,EW+ AR UER& *E*40110055

T+/-\$XC- OTJE(C- 0-1ECC- 0-AR@C0D 04/TKC0D06,TK0H* 0Q31* C /1R#|EC *** <BGEZ< CQHF(4BAQ \$9-40110056

T+/-S*-0AE76 *** 0 AE> ** CQHF(4BA) DPCT0AE284 /* S(DP+C- E_2D * @AA*-@Y*D||DPHC0 *** Q#040110057

T+/-) + 08|H@A33 0E3\$2/0E00J*61 ** CS E0# D *** C- PC/*+C- PIA*UC0D PH/TKC0DP+ATK0H* RCL6 :,440110058

T+/-;QBA) 1+H BB?H &B-8AE7D05<BG *** 0-H C DPSTMMA7E < &HQ@<BG@6* /0H E0-8*,U ACB--E1: \$0H* @.840110059

T+/-~LP10<IA0*G%C /1SXCA--A1*ROH* QX<BG@WG %BG SI ** BGB/G /0HE0-4 *YD BOH+P6Q*/0H* BHU 3 040110060

T+/-+ %BG /Q4BAT = (SDQ"/-BGD- F < *K& Q /1H J-CGEH A0H*BFYQSGE|&/0H 4BA-IC **96 *** (- Q4C6 95 40110061

T+/-IBASSJ~D*9* APB&<DA8XFQ0@K1@ Y|~H*9* APC0<EA@ ,P%&K1@%|-<*9* APD-<DJ@YF_Q@K1@ Z|~H NDQ40110062

T+/-SD3+P J/ECAM ~.A%J|D%~.*BG /8 BFJU) X-0XG1Q) Z 4 AGROQ=|HAD-0AGE-)X-0EG1D) D--CPH4 H a ** -840110063

T+/-S"/0HEJN%~KMB -C8Y-KJ HOMHP?@B G *** 4BAT | HDQ%& GBC&HF< @-/S30H* BF-A\$G4U<0/IG4, /0 ** 0--40110064

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OBJECT CARD LISTING

CL 1 THROUGH 16 CL 17 THROUGH 32 CL 33 THROUGH 48 CL 49 THROUGH 64 CL 65 THROUGH 80 CL 81 THROUGH 96

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OBJECT CARD LISTING

CL 1 THROUGH 16 CL 17 THROUGH 32 CL 33 THROUGH 48 CL 49 THROUGH 64 CL 65 THROUGH 80 CL 81 THROUGH 96

T+/\$2*J 0*\$N5<G N1+I.1(R S>TS8@P RS(XE8%PT6<GR1DC S8@GR86_ 0-R 8@X N1;I.1;~P1*T@(~ R5%< J1440110087

T+/\$G1;-.S6<|R1*| K8<GP8@P@6<PA0@/ S>TS8@P@6(XE8@P T@<GN1DC\$8@GR84? I5;PA4@XDE<|D5(L A5@& K8*40110088

T+/:BS+\$A8UC@0@| E5=|E1D_ 6+-X9@C N8XPN8XN P@TER+. E5;-.P@<|R1*|KK51 +5) ST1H1*G<XP@<E 9_0 i-840110089

T+/:('0)) 0*\$N5@P C8*\$R@<XS@<GT8@G C2<PD@'XE5 (\$V1MC I84CA5*J 1(R 8>T S8@P@6(XE8%PT@4C S8@D E9*40110090

T<A@>S;(.2*8 0*\$ N5*PC8*\$R@<XS@(\$ P10CT2<PR@>|7'|E 2) PT1) XE9(~T@<| H1*|KK0 ***** ***** 28440110091

T A@>S ***** ***** ***** ***** ***** ***** ***** ***** ***** ***** ***** R8840110092

BB/E*27*-=-DC@PH\$ =#7MEP| *** | C ** PX ** ASC ** P A SO Q ***** ***** 11350908741 121745@840110093

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